NATIVE INSTRUMENTS

TRAKTOR SCRATCH

Operation Manual

N I **NATIVE INSTRUMENTS**

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Dear Customer,

Thank you for purchasing TRAKTOR Scratch, and for trusting in the quality of NATIVE INSTRUMENTS products.

TRAKTOR Scratch is an integrated software and hardware system for DJ's made of several components:

- AUDIO 8 DJ, your new professional 8 In 8 Out USB 2.0 audio interface
- Control Vinyls and CD's
- The Multicore Audio Cable, for connecting your turntables, AUDIO 8 DJ and mixer
- TRAKTOR Scratch, the software connecting these components to your digital music archive

Years of experience in the domain of vinyl control for digital music and the fast AUDIO 8 DJ interface have allowed us create an astonishingly tight system, that really feels like a *Native Instrument*.

Our thanks go to the fathers of the idea of digital vinyl control, and to the minds that have brought the system to this level of quality.

Enjoy it!

NATIVE INSTRUMENTS

1. Audio 8 DJ and TRAKTOR Scratch Software Installation

TRAKTOR Scratch is an integrated Hardware and Software System. Please proceed as follows for installing the components of this system.

The correct order of installation is:

- Installing the AUDIO 8 DJ drivers (software)
- Connecting the AUDIO 8 DJ hardware
- Installing the TRAKTOR Scratch software
- Authorizing TRAKTOR Scratch

> **Do not connect the audio interface before the installer prompts you as the operating system may install the wrong drivers.**

1.1 Installing the AUDIO 8 DJ drivers under Mac OS X

Installation of the AUDIO 8 DJ

Place the installation CD in the CD-ROM drive of your computer.

Double-click on the TRAKTOR CD icon to open the contents of the CD.

Double-click the AUDIO 8 DJ Driver installer.

First, the installer shows a start image. When you click **Continue**, a dialog will open in which you can choose the mode of installation as well as the destination folder.

The default installation path is the *Applications/Audio 8 DJ Driver* folder.

Please follow the onscreen installation instructions provided.

> **Note:** You cannot install the AUDIO 8 DJ on a USB 1.1 port – a USB 2.0 port is required.

Uninstalling the AUDIO 8 DJ

To uninstall the AUDIO 8 DJ drivers from your computer, proceed as follows:

- Delete the folder *Applications/Audio 8 DJ Driver*.
- Delete the file **TraktorScratch.plist** in *Root/ Library/ Preferences*.
- Delete the file **TraktorScratch.plist** in *User/ Library/ Preferences*.

Afterwards, empty the trash bin to completely erase the program.

Note: Please always refer to the **Readme** file on the installation CD as it contains last minute information that may not be available in the printed manual.

1.2 Installing TRAKTOR Scratch under Mac OS X

System requirements

To use the TRAKTOR Scratch software on a Macintosh Computer, your system must meet the following requirements:

- G4 1.4 GHz, Mac OS 10.4.8 or Intel® Core™ Duo Family, 512 MB RAM
- USB 2.0 Interface

Installation of TRAKTOR Scratch

Place the installation CD in the CD-ROM drive of your computer.

Double-click on the TRAKTOR CD icon to open the contents of the CD.

Double-click the TRAKTOR installer.

First, the installer shows a start image. When you click **Continue**, a dialog will open in which you can choose the mode of installation as well as the destination folder.

The default installation path is the *Applications/Traktor Scratch* folder.

Please follow the onscreen installation instructions provided.

Uninstalling TRAKTOR Scratch

To uninstall TRAKTOR Scratch from your computer, proceed as follows:

- Delete the folder *Applications/Traktor Scratch*.
- Delete the file **TraktorScratch.plist** in *Root/ Library/ Preferences*.
- Delete the file **TraktorScratch.plist** in *User/ Library/ Preferences*.

Afterwards, empty the trash bin to completely erase the program.

> **Note:** Please always refer to the **Readme** file on the installation CD as it contains last minute information that may not be available in the printed manual.

1.3 Installing the AUDIO 8 DJ under Windows

Installation of the AUDIO 8 DJ

- Place the installation CD in the CD-ROM drive of your computer.
- Use the Windows Explorer to browse the contents of the CD.
- Start the installation by double-clicking on **Audio 8 DJ Driver Setup. exe**.
- Follow the onscreen instructions.

The setup program will lead you through the installation process. As the path for installation the setup will suggest *C:\Program Files\NATIVE INSTRUMENTS\ Audio 8 DJ Driver*. You can also choose another destination folder if you wish.

> **Note:** You cannot install the AUDIO 8 DJ on a USB 1.1 port – a USB 2.0 port is required.

Uninstalling the AUDIO 8 DJ

To uninstall the AUDIO 8 DJ drivers from your computer, use the following steps:

- Open *C:\Program Files\NATIVE INSTRUMENTS\Audio 8 DJ Driver*.
- Double-click the **Unwise** tool to begin un-installation.
- Choose **Automatic** from the following dialog**.**

> **Note:** Please always refer to the *Readme* file on the installation CD as it contains last minute information not available in the printed manual.

1.4 Installing TRAKTOR Scratch under Windows

System requirements

To use the TRAKTOR Scratch software on a PC computer, your system must meet the following minimum requirements:

- Pentium/ Athlon 1.4 GHz, Windows XP Service Pack 2, 512 MB RAM
- USB 2.0 Interface

Installation of TRAKTOR Scratch

- Place the installation CD in the CD-ROM drive of your computer.
- Use the Windows Explorer to browse the contents of the CD.
- Start the installation by double-clicking on **Setup.exe**.
- Follow the onscreen instructions.

The setup program will lead you through the installation process.

Uninstalling TRAKTOR Scratch

To uninstall TRAKTOR Scratch from your computer, use the following steps:

- Open *C:\Program Files\NATIVE INSTRUMENTS\Traktor Scratch*.
- Double-click the **Unwise** tool to begin un-installation.
- Choose **Automatic** from the following dialog**.**

> **Note:** Please always refer to the *Readme* file on the installation CD as it contains last minute information not available in the printed manual.

2. Hardware Setup

2.1 Multicore Cables

TRAKTOR Scratch goes one step beyond all current digital vinyl systems in offering an innovative way of connecting your audio interface to the turntables. The **Multicore** cables provided in the package unify the following functions into one unique solution:

- Connecting the turntables to the inputs of the AUDIO 8 DJ
- Connecting the outputs of the AUDIO 8 DJ to the mixer
- Connecting the turntables to the mixer, for playing regular vinyl
- The color coding of the multi-pin XLR connectors make cabling errors impossible and allows connection with 2 clicks when switching DJ's
- Long cables allow the AUDIO 8 DJ to be placed on either side of the turntables
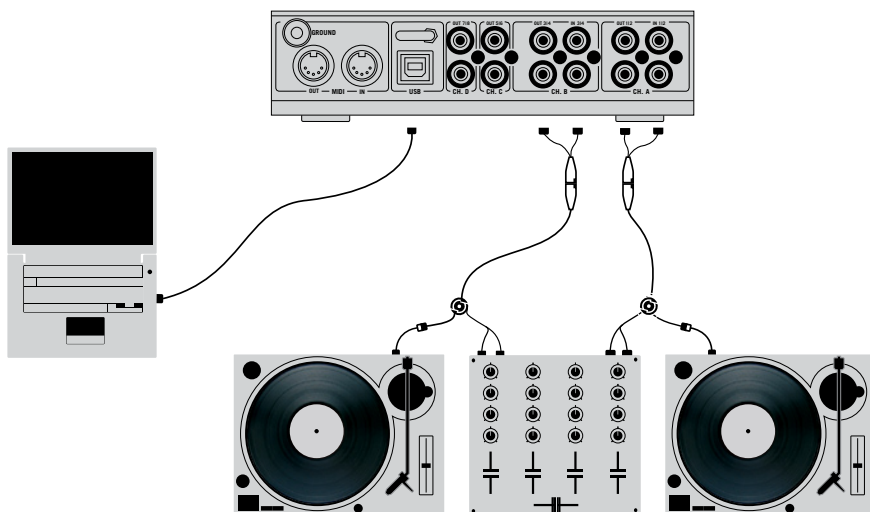
Standard connection with turntables
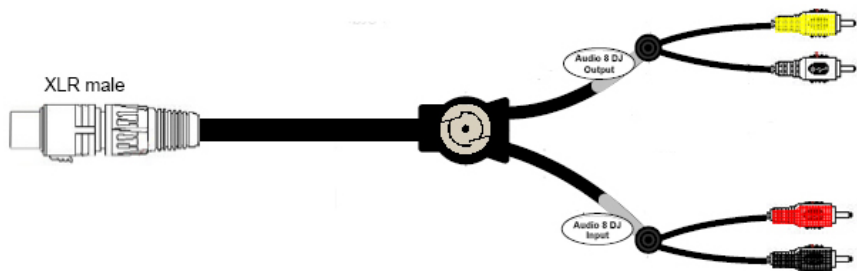
The male part of each **Multicore** cable (XLR-connector with pins) has 4 colored RCA connectors. Each of the cables is for one deck and provides the **Control Signal** to the audio interface via the black and red connector, whilst picking up audio from the TRAKTOR Scratch decks via the white and yellow connector.
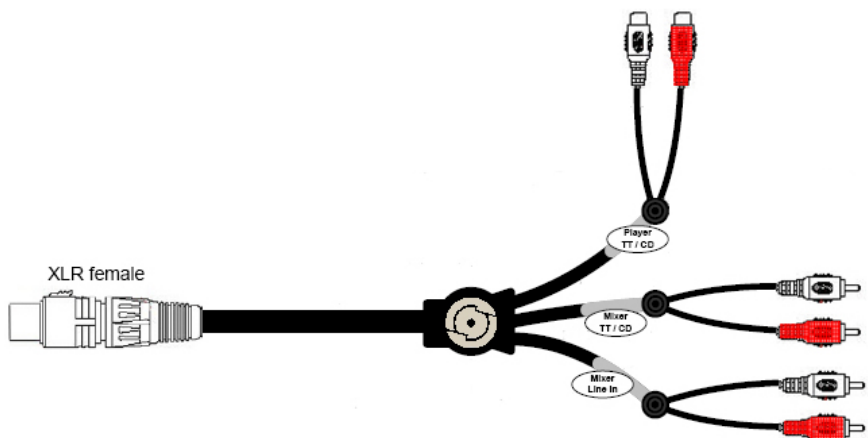
The female part of each **Multicore** cable has six RCA connectors: 2 female and 4 male. Each of the cables is for one **Deck** and picks up the **Control Signal** from the turntable or CD player via the red and white female connectors labeled **Player (TT/CD).** It then splits it into one signal to the AUDIO 8 DJ via the XLR connector, and one signal to the mixer via the male RCA connectors labeled **Mixer TT/CD**. At the same time it provides audio from the TRAKTOR Scratch line input of the mixer via the second pair of male RCA connectors labeled **Mixer Line In**.

The cable is suited for pre-installation as it leaves the turntables connected to the mixer and therefore fully operational for DJ's playing regular vinyl or CDs. To insert the cable into an existing setup, unplug the turntables from

the mixer one by one, connect them with the female RCA connectors and plug the RCA connectors labeled **Mixer TT/CD** into the previous inputs of the turntables that you just unplugged. Check if the turntable can still be heard on the same channel of the mixer after installation of the cable.

2.2 Detailed Instructions for Hooking up your Turntables with the Multicore Cables

Connecting the Multicore Cables with the AUDIO 8 DJ

- Take the male part of the first **Multicore** cable with the four RCAs that are all having different colors.
- Connect the four RCAs with the respective colored plugs of the **Ch. A** section of your AUDIO 8 DJ. This corresponds to connecting the RCA pair labeled **AUDIO 8 DJ Output** with the **Out 1/2** of your AUDIO 8 DJ, and the RCA pair labeled **Audio DJ Input** with the **Input 1/2** of the AUDIO 8 DJ.
- Take the male side of the second **Multicore** cable (with the four RCAs all having a different color).
- Connect the four RCAs with the respective colored plugs of the **Ch. B** section of your AUDIO 8 DJ. This corresponds to connecting the RCA pair labeled **AUDIO 8 DJ Output** with the **Out 3/4** of your AUDIO 8 DJ, and the RCA pair labeled **Audio DJ Input** with the **Input 3/4** of the AUDIO 8 DJ.

Connecting the Multicore Cables with Your Turntables and Your Mixer

- Take the female part of the first **Multicore** cable with six RCA cables - four male and two female plugs.
- Plug the left turntable (**Deck A**) into the two female RCAs, labeled with **Player TT/CD**.
- Plug the two RCAs labeled **Mixer TT/CD** into the **Phono Inputs** of Deck A (left turntable) of your hardware mixer.
- Plug the two RCAs labeled **Mixer Line/In** into the **Line Inputs** of Deck A (left turntable) of your hardware mixer.
- Take the female part of the second **Multicore** cable with six RCA cables - four male and two female plugs.
- Plug the right turntable (**Deck B**) into the two female RCAs, labeled with **Player TT/CD**.

- Plug the two RCAs labeled **Mixer TT/CD** into the **Phono Inputs** of Deck B (right turntable) of your hardware mixer.
- Plug the two RCAs labeled **Mixer Line/In** into the **Line Inputs** of Deck B (right turntable) of your hardware mixer.

2.3 Detailed Instructions for Hooking up your CD-Players with the Multicore Cables

Connecting the Multicore Cables with the AUDIO 8 DJ

- Connect the Multicore cable with the AUDIO 8 DJ as described above for turntables but switch the **Input Mode** on the AUDIO 8 DJ to **Timecode CD/ Line** (see chapter 5; More about the AUDIO 8 DJ).

Connecting the Multicore Cables with Your CD-Players and Your Mixer

- Take the female part of the first **Multicore** cable with six RCA cables - four male and two female plugs.
- Plug the left CD-Player (**Deck A**) into the two female RCAs, labeled with **Player TT/CD**.
- Plug the two RCAs labeled **Mixer Line/In** into the **Line Inputs** of Deck A (left CD-Player) of your hardware mixer.
- Plug the two RCAs labeled **Mixer TT/CD** into another **Line Input** of Deck A (left CD-Player) of your hardware mixer.
- Take the female side of the second **MultiCore** cable with six RCA cables, - four male and two female plugs.
- Plug the right CD-Player (**Deck B**) into the two female RCAs, labeled with **Player TT/CD**.
- Plug the two RCAs labeled **Mixer Line/In** into the **Line Inputs** of Deck B (right CD-Player) of your hardware mixer.
- Plug the two RCAs labeled **Mixer TT/CD** into another **Line Input** of Deck B (right CD-Player) of your hardware mixer.

Note: Some mixers don't have two **Line Inputs** per channel. To use the **Control Signal** control, it is only necessary to have the RCAs called **Mixer Line/In** connected. The other pair (**Mixer TT/CD**) can be plugged in another **Line Input**, since this connection is only needed for playing regular CDs or can be left out completely.

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3. First Steps with TRAKTOR Scratch

3.1 Starting the Software

- **Mac OS X**: Go to *Macintosh HD > Applications > Traktor Scratch* and double-click on the TRAKTOR Scratch program icon.
- **Windows**: Go to *Start > Programs > NATIVE INSTRUMENTS Traktor Scratch* and click the TRAKTOR Scratch program icon.

3.2 Registration and Product Authorization

When starting TRAKTOR Scratch for the first time, you will see the following screen:

- Choose **Activate** to start the NI Service Center for authorizing the software. This will start the **Service Center**, which gives you a comfortable step-by-step walk through the authorization process. You find more information about the **Service Center** in a separate **Setup Guide** booklet included in your TRAKTOR Scratch package. **Service Center** also includes an **Update Manager** that helps you download the most recent version of TRAKTOR. You should check regularly for updates to TRAKTOR for best performance and compatibility with other audio applications.

- Choose **Run Demo** to run TRAKTOR Scratch in **Demo Mode**. Once you have decided to purchase a product, all you need do is unlock the demo version by entering a valid serial number – it then instantly becomes the full version. **Demo Mode** has the following restrictions: audio processing stops after 30 minutes, audio recording disabled, no saving of hotkey and midi assignments.

Note: you have to restart TRAKTOR Scratch to change from **Demo Mode** into **Full Mode**.

3.3 Verifying the Connection to the AUDIO 8 DJ

Verify if the **AUDIO monitor LED** in the header of TRAKTOR Scratch is green. This color indicates the correct connection with the audio interface. If the LED is red or grey you have to verify the connection to the AUDIO 8 DJ. You may have to restart TRAKTOR Scratch to get the connection to work. In case of problems, please refer to chapter 17 (Troubleshooting).

3.4 Testing the Outputs of the AUDIO 8 DJ with a Demo Track

- Open the **Demo Playlist** by double-clicking the **Playlist/ Mixes** folder in the **Tree Window** and then opening the **Demo Playlist.**
- Right-/ Ctrl-click on one of the tracks in the **List** and choose **Load Track in Deck A**. This will load the track in **Deck A**, and the track **Waveform** will be displayed.
- Click the **Play** button underneath **Deck A**.
- The Waveform of the track will start to move from right to left and the **Master Level Meter** in the header will start to flash with the music.
- If the **Waveform** does not scroll from left to right, you're having a soundcard problem. Read more in chapter 17 (Troubleshooting).
- On the AUDIO 8 DJ hardware the LEDs labeled **OUT 1I2** will start flashing green.
- If you hear no sound, but all indicators are functional and lit, you may have accidentally moved a knob or fader on your hardware mixer, or something may be wrong with your cable connections. Please verify your setup as described in chapter 17 (Troubleshooting).

3.5 Testing the Inputs of the AUDIO 8 DJ with Control Vinyl or Control CD

Now that the outputs of the AUDIO 8 DJ are working properly, we have to check the inputs required for turntable control of TRAKTOR Scratch. Proceed as follows:

- Put the **Control Records** on your turntable (or the **Control CDs** in your CD-Player) and play it back.

- If you are playing **Control Records** on turntables, set the **AUDIO 8 DJ Input Mode** for channels A and B to **Timecode Vinyl** by toggling through the modes with the **INPUT MODE** button on the front panel.

- If you are playing **Control CDs**, set the **AUDIO 8 DJ Input Mode** for channels A and B to **Timecode CD** by toggling through the modes with the **INPUT MODE** button on the front panel.
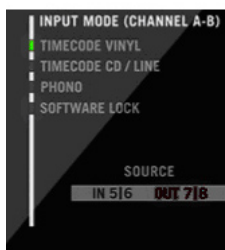
Input Mode
Selector

- Check the **Input LEDs** on channels A and B labeled **IN 1|2** and **IN 3|4.** They should flicker green.

- If the LEDs are flickering red, the inputs are clipping. This happens when the wrong **Input Mode** is selected (connecting CD players in **Vinyl Mode**).

- If the LEDs don't flicker at all, the signal is too weak or missing. This can either be due to the wrong **Input Mode** (connecting turntables in **CD Mode**) or to loose or broken cables.

- Next, check if the control signal of both players are showing up in the scopes. The message in the scope should say **ON** and the scope figures should look like this:

- If the figures do not show up or look different, or the displayed message does not say **ON**, please refer to section 4.1 (The Calibration Process).
- Finally make sure that the **Deck Assignment** buttons labeled A and B above each scope are lit like in the above picture: the left input is assigned to **Deck A** and the right input to **Deck B**.
- The **Absolute Tracking** button underneath the waveform is highlighted in yellow indicating that the deck is ready to go:

3.6 Playing a Track with Vinyl or CD Control

Using Control Vinyl:
- Load a track in **Deck A** as described before.
- Place the needle at the beginning of the record and start your turntable.
- The track in the deck will start to play and you will hear it over the speakers.
- Put your hand on the record and move the record back and forth. Notice your manual control over the speed.
- Pick up the needle and drop it somewhere else on the records to cue within the track.
- Load a second track in **Deck B** and start mixing as you would using regular turntables.

- Move the **Pitch Fader** of the second turntable to match the beats.
- Use the channel- and crossfader on your mixer as normal.

Using Control CD:
- Load a track in **Deck A** as described in the section before.
- Start your CD-Player – it will shortly play track #1 (called **Lead In**) and then start to play track #2. This track is used for regular playback.
- The track in the deck will start to play and you will hear it over the speakers.
- Put your hand on the jog wheel and move the platter back and forth. Notice your manual control over the speed.
- Seek through the track using the **Track Search** button on the CD player.
- Load a second track in **Deck B** and start mixing as you would using regular DJ CD players.
- Move the **Pitch Fader** of the second CD player to match the beats.
- Use the channel- and crossfader of your mixer as normal.

3.7 Internal, Relative and Absolute Playback Tracking Modes

From left to right: Internal, Relative and Absolute Mode buttons, then Loop and Set Cue buttons.

We have already encountered **Internal Playback** mode when testing the soundcards outputs. **Internal Playback** means that you control playback via the **Play** button and the software pitch fader, regardless of your external turntables or CD players

Absolute Playback Tracking mode is activated by pressing the button with the representation of a record and a tonearm. This absolutely links the position of the tonearm on the record to the playback position of your track. Each action on the tonearm has direct effect on playback of the track in TRAKTOR Scratch, be it moving of the record back and forth or placing the needle on another part of the record (**Needle Drop**)

While in **Absolute Tracking Mode**, press the **Loop** button on the right of the **Absolute Tracking** button. You will notice the following:
- Playback of the track starts looping the current part of the song

- Playback mode has switched to the button showing only a record. This mode is called **Relative Tracking Mode**.

Touch the record or jog wheel to see that you still have control over the track, but when you lift the needle and place it somewhere else on the records, you will notice that the software still plays the loop.

This happens because when setting a **Loop** the software stops to lock to the position of the needle. While the software starts to repeat the same part of the song, the needle on the record moves forward creating a growing offset to the software. The software therefore ignores the position of the needle and only tracks the rotational speed of the record.

The position of the needle is ignored except in one special area of the records: the **Lead In**. Dropping the needle into the **Lead In** will skip back to the beginning of the song, also when in **Relative Tracking Mode**.

3.8 The Control Zones on Vinyl

The **Control Vinyl** consists of the following three zones, each with different playback functions :

Lead In – The first few Rounds of the Record

Dropping the needle into the **Lead In Zone** of the record will skip to the beginning of the track. Use this to skip back to the beginning of a track when playing in the **Relative Tracking Mode**.

> **Note**: Find options to customize the automatic absolute mode in *Preferences > Deck Preferences > Loading* and *Preferences > Deck Preferences > Transport*.

Playback Zone - Main Part of the Record

This is subdivided into 10 tracks on side A and 15 tracks on side B. This zone is used for regular playback. The divisions are visual markers of time, which do not affect the continuous playback of the loaded track.

Scroll Zone – Last two Tracks of the Record.

Dropping the needle in the **Scroll Zone** allows you to scroll up and down through your playlist by manually spinning the record forward or backward. To play the selected track, simply place the tonearm back into the **Playback Zone**.

Note: If your track exceeds the 10 minutes **Playback Zone** it will continue playing normally in the **Scroll Zone** – you have to lift and drop the needle again to stop the playback and switch to **Scroll Mode**. Even if you reach the end of the record, the track will continue to play as there is an endless groove at the end of the record!

3.9 The Control Zones on CD

The control CD consists of the following three tracks, each with different playback functions:

CD Track #1: Lead In – (0:04 min)

Skipping to CD Track #1 will skip into the **Lead In** of the loaded track. Use to skip back to the beginning of a track when playing in **Relative Tracking Mode**.

CD Track #2: Playback Zone – (27:30)

This track is used for regular playback.

CD Track #3: Scroll Zone – (2:30)

Skipping to CD track #3 allows you to scroll up and down through your playlist by manually spinning the jog wheel of your CD player. To play the selected track, simply skip back to CD track # 1.

Note: If your track exceeds the 27:30 minutes **Playback Zone** it will continue playing back normally in the **Scroll Zone** – you have to skip manually to track #3 again to switch to **Scroll Mode**. And even if your track exceeds the whole 30 minutes, it will continue playing in **Internal Mode**!

3.10 Test Driving on Your own Music

As you probably already have a collection of music files on your hard drive, you might want to test drive TRAKTOR Scratch with your own music.

- Open a window of the Mac Finder or Windows Explorer containing the tracks that you want to play.
- Click and hold one of your tracks and drag it from the external window to the TRAKTOR Scratch window and into **Deck A**.

- After a short loading time you should see the **Waveform** of your track building up in the display.
- Click and hold one of your tracks and drag it from the external window to the TRAKTOR Scratch window and into **Deck B**.
- Play and mix the tracks as you have learned in the previous section.

4. Understanding the Scratch Panel

4.1 The Calibration Process

The **Calibration** is triggered when you assign an input to a deck in TRAKTOR Scratch by pressing one of the **Deck Assign** buttons labeled **A** or **B** above the scopes.

Calibration is required for the following reasons:

- Detection of the type of media (vinyl or CD), as well as the side of the played vinyl
- Detection of the input level of the control signal
- Detection of the connection and the quality of the signal and if it is sufficient for tracking
- Correction of reversed channels

When you start the calibration by pressing one of the buttons labeled **A** or **B** (while letting the record/ CD play), the decoder evaluates the signal that is shown by the **Position Meters** on each side of the scopes. The **Position Meters** indicate how many valid position readouts have been transmitted by the turntable or CD player.

If the meters do not turn white, something is wrong with your control signal.

The decoder outputs a series of messages, qualifying the result of the calibration process:

ON

If the calibration was successful, you will find the message **ON** along with your currently used medium (**Vinyl 10**, **Vinyl 15** or **CD**) in the **Control Signal** graphic as shown below:

Example of a good Control Signal

Browsing

You dropped the needle in the **Scroll Zone** (see chapter 3.8 (The Control Zones on Vinyl) and 3.9 (The Control Zones on CD). You should see in the **List Window** how you scroll through your playlist backwards and forwards according to the movement of the record/ CD.

Whenever you stop the movement, the respective track will be loaded into the deck you're scrolling in.

Calibration Failed

No valid positions detected, or in other words: the calibration was not successful. TRAKTOR Scratch will nevertheless work in **Relative Tracking Mode**.

A reason for a failed calibration can be deterioration of pick-ups and records. The status of records and needles can be judged by observing the **Scope** figures. The more the circles are distorted and fuzzy the higher the degradation of the records and pick-ups.
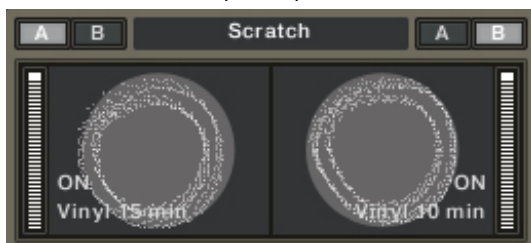
Example of a bad Control Signal.

MISSING RIGHT CHANNEL or MISSING LEFT CHANNEL

The left or right channel is10% quieter than the other channel. A backward movement of the **Control Vinyl/ CD** cannot be computed, but tempo variations and needle dropping should still be possible. A missing channel can be seen easily seen on the **Control Signal panel**:

Example of missing channels.

CHANNEL SWAP

The decoder exchanges the stereo channels internally. There are three possible causes:

- Incorrect wiring- the stereo channels are swapped.
- One of the channels has a phase inversion. If you're sure that the channels have not been swapped you should check the needle, as the detection of the absolute position is slower and less reliable.
- The **Control Vinyl/ CD** was spinning backwards during the calibration. The calibration failed and you should see the message **Calibration Failed**

Skipping

This shows up when the needle skips on the record.

4.2 Sticker View

Besides showing the incoming signal in the **Scope View**, the **Scratch Panel** can be switched to showing the motion of the records as rotating labels. Toggle between the **Scope** and the **Sticker View** by clicking on the **Scratch** panel:

Sticker View

Find out more about placing stickers on your records that reflect the white dots in the **Sticker View** in chapter 16.4 (Stickering the Control Record).

5. More about the AUDIO 8 DJ

The AUDIO 8 DJ combines high end audio quality with unmatched connectivity and a rock-solid mobile design. It is destined to be the beating heart of your DJ set-up and provides a professional level interface between your preferred software and your audience:

- Cirrus-Logic™ AD-DA converters guarantee a sound quality that will impress even the most discerning audiophiles.
- Low latency drivers along with hi-gain output levels on all channels prove the AUDIO 8 DJ's professional credentials.
- 8 inputs, 8 outputs, MIDI I/O, 1/4" headphone connector, and 20 status LEDs for full visual control.

5.1 Back View and Connections

Ground Screw   USB Security Hook   8 Outputs / 4 Stereo Channels

MIDI Input/Output   USB 2.0 Bus-Powered   4 Inputs/2 Stereo [4 more on front]
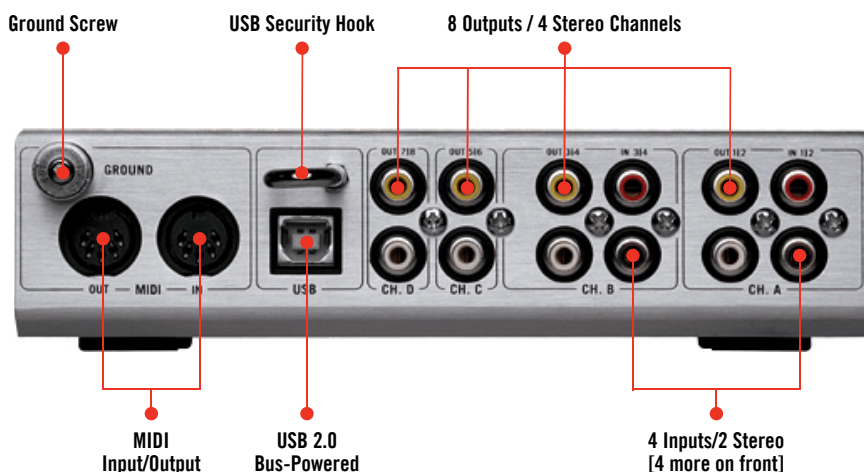
- **IN 1/2 – OUT 1/2 (CH A)**: Connect here the male XLR part of the **Multicore** cable to control **Deck A**.
- **IN 3/4 – OUT 3/4 (CH B)**: Connect here the female XLR part of the **Multicore** cable to control **Deck B**.
- **OUT 5/6 (CH C)**: Connect to auxiliary input of your mixer when using send effects.
- **OUT 7/8 (CH D)**: Connect to auxiliary input of your mixer when using send effects.

- **USB**: Connect here your computer via USB 2.0.
- **USB Security Hook**: Wrap your USB cable around this to prevent accidental disconnection.
- **MIDI IN/ OUT**: Connect your MIDI device here.
- **GROUND**: If connecting the turntable grounds to the mixer gives unsatisfactory results, ground your turntables here.

5.2 Front View and Connections
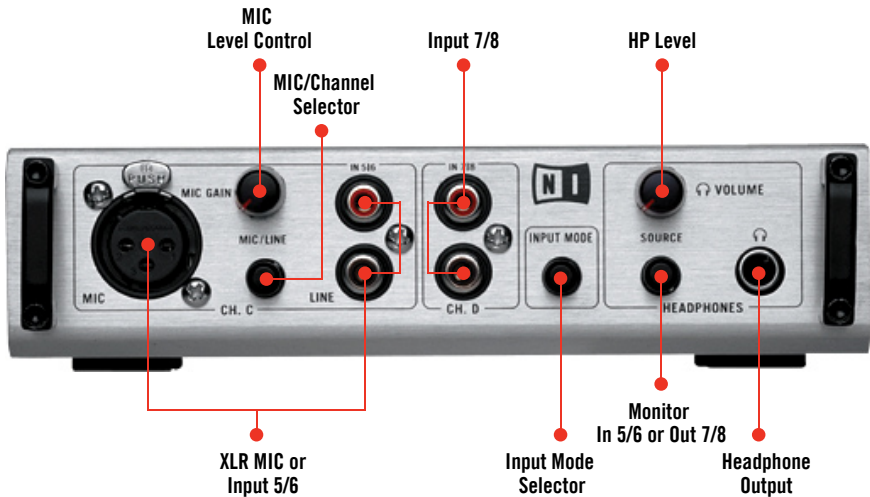
- **MIC**: Connect a microphone via XLR here.
- **IN 5/6 (CH C)**: Connect to effects output of your mixer for using send effects.
- **MIC GAIN**: Control the microphone volume here.
- **MIC/ LINE Selector**: Select your input source.
- **IN 7/8 (CH D)**: Connect to second output of your mixer, e.g. for recording purposes.
- **INPUT MODE**: Toggle between the input modes of **Deck A** and **B** (**Control Vinyl**, **Control CD/ Line**, **Phono**)
- **HEADPHONES**: Connect your headphones here if you don't want to connect them at the mixer.
- **SOURCE**: Toggle between **IN 5/6** and **OUT 7/8** as sources.
- **VOLUME**: Controls the headphones volume.

5.3 Advanced Setups

The architecture of the AUDIO 8 DJ is very versatile and can be used in very advanced setups. Here is a selection of the most common setups that go beyond the basic setup dicussed so far.

Recording Setup

The built-in recorder of TRAKTOR Scratch allows you to record your perform-ance. This setup requires a second output on the mixer, often labeled *REC* or *OUT 2*. Connect this output to **Inputs 7I8** (= Channel D) of the AUDIO 8 DJ.

In the software, set the recording input to **Channel D**, as described in chapter 15.4 (Recording).
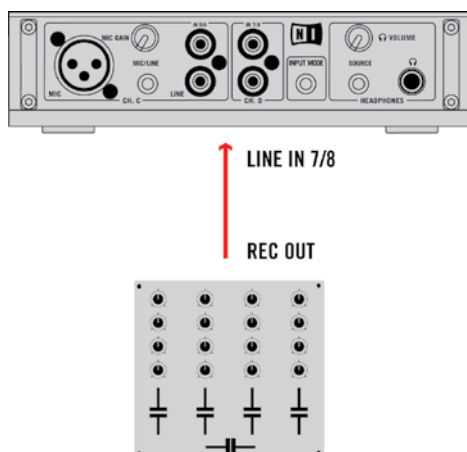
Recording Setup

Using a Microphone

If you want to record a microphone within TRAKTOR Scratch, you need to route the sound of the microphone through the audio interface before feeding it into the mixer. The following scheme describes how to achieve this:

- Connect the microphone to the **Mic In** on the AUDIO 8 DJ
- Switch the **Input Selector** of **Channel C** to **MIC**
- Adjust the microphone input level
- Switch the **Headphone Source** to **IN 5I6**
- Connect the **Headphone Output** of the AUDIO 8 DJ with an available auxiliary input of your mixer.
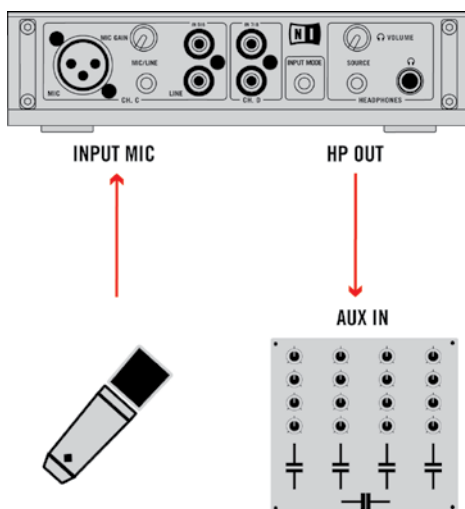
Microphone Setup

Using Send Effects

The **Send Effects** of TRAKTOR Scratch can process sound from the inputs of the soundcard. This allows you to route a microphone through the effects, and also to route the FX Send output of your mixer through the effects of TRAKTOR Scratch.

The following diagram shows how to connect your mixer to the AUDIO 8 DJ for using the **Send Effects**.
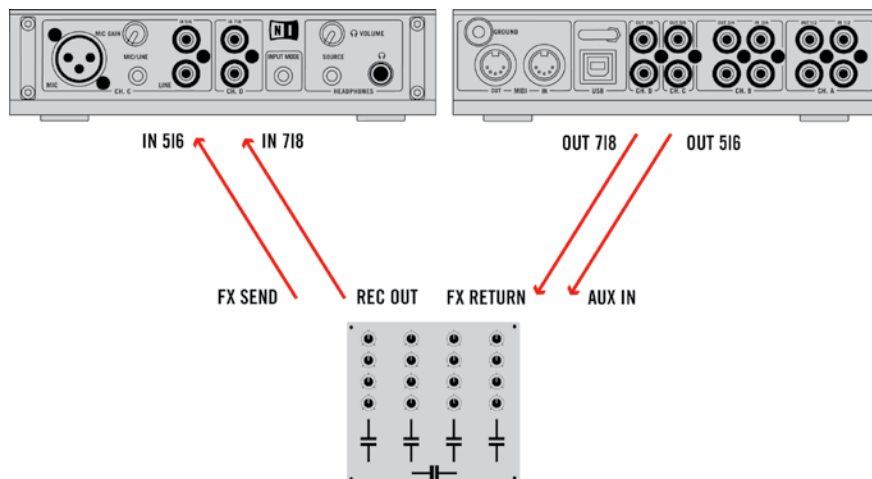
Effects Setup

Mix Mode

The **Audio Preferences** of TRAKTOR Scratch offer a special output called **Mix Mode.** In this mode the outputs of **Send Effects** and **Preview Player** are all merged into **OUT 5I6** allowing the connection to mixers that have only one single auxiliary input.

Here is how the outputs are routed within TRAKTOR Scratch.

Mix Mode ON:

- SFX 1   to   OUT 5I6
- SFX 2   to   OUT 7I8
- Preview   to   OUT 7I8

Mix Mode OFF:
- SFX 1   to   OUT 5|6
- SFX 2   to   OUT 5|6
- Preview   to   OUT 5|6

5.4 Status LEDs

The AUDIO 8 DJ gives you a visual feedback of the connected channels and input modes, so you can easily see and determine which channels are connected or which source or input mode is chosen. Active channels/ sources are lit.

Activity LEDs

Protective Brackets
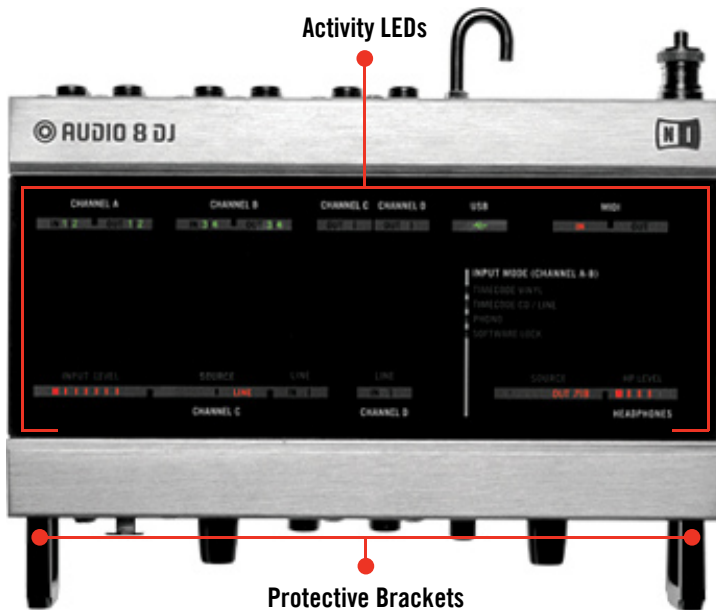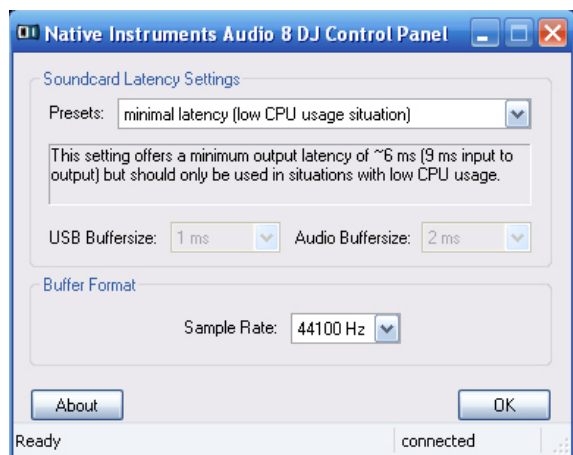
5.5 Control Panel

Close TRAKTOR Scratch, then click on *All Programs > Native Instruments AUDIO 8 DJ Driver > Control Panel* to open the **Control Panel**.
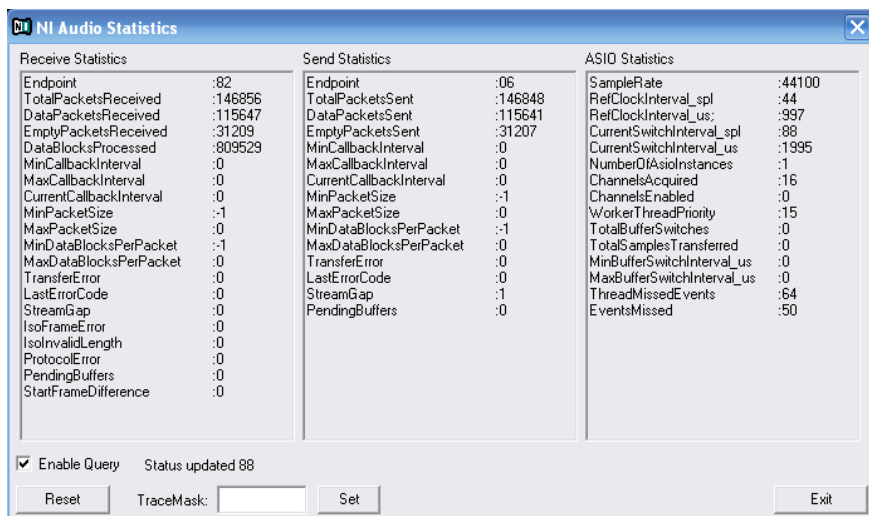
You can find here options to adjust the latency of the AUDIO 8 DJ.

Any signal going into the computer has to go through two buffers - once through the USB bus and once through the ASIO driver. On every path, latency is created. As a rule of thumb, you can calculate the overall latency (in and out) by *2 * USB Buffersize + 2 * ASIO Buffersize + 2*.

Small USB and Audio Buffer settings stress your computer more. Read more on latency in chapter 17.1 (What is Latency?).

- **Presets**: Select a preset that has already preconfigured values for the **USB** and the **Audio Buffersize**.
- Choosing **User defined Settings** allows you to choose an **USB Buffersize** independantly from the **Audio Buffersize**.
- **Sample Rate**: Choose a sample rate. 44.100 Hz is the most common setting.

5.6 Audio Statistics

Click on *All Programs > Native Instruments AUDIO 8 DJ Driver > Audio Statistics* to open the **Audio Statistics** tool.

This analyzes what happens on the USB Bus, and records every small error which you can then see in the lower right corner (**ThreadMissedEvents**).

Since the **Audio Statistics** tool is mainly a diagnosis tool, you might be asked from by TRAKTOR Scratch Support to report certain data in the case of problems.

5.7. Technical Specification

Miscellaneous Specifications

- MIDI Interface: 1 Input, 1 Output
- Computer Connection: USB 2.0, Bus-Powered
- Dimensions: 45mm x 174mm x 103mm (141mm overall) (HxWxD)
- Weight: 825g

General Interface Specifications

	Input (A/D)	Output (D/A)
Channels	8	8
Sampling Rate	44.1, 48, 96 KHz	44.1, 48, 96 KHz
Bit Resolution	16, 24	16, 24
Converter	Cirrus Logic	Cirrus Logic

Input Specifications

	Line	Microphone	Phono
Cross Talk	-87 dBu	-87 dBu	-87 dBu
Impedance	47 kOhm	> 1 MOhm	47 kOhm/1 MOhm
Full Scale Level (max. gain)	12 dBu	-55 dBu	-23,5 dBu
THD + N	0.007 %	0.007 %	0.062 %
SNR	100 dB (A-weighted)	100 dB (A-weighted)	100 dB (A-weighted)
Frequency Response	10 - 40kHz ±0.5 dB	10 - 40kHz ±0.5 dB	10 - 40kHz ±0.5 dB

Output Specifications

	Line	Headphone
Cross Talk	87 dBu	87 dBu
Impedance	100 Ohm Unbalanced	8 Ohm (min load)
Maximum Output Level	9,6 dBu	12 dBu, 3V rms, 100 mW @ 100 Ohm
THD + N	0.007 %	0.012 %
SNR	101 dB (A-weighted)	95 dBu (A-weighted)
Frequency Response	10 - 40kHz ±0.5 dB	10 - 40kHz ±0.5 dB

6. Beatport™ - Online Dance Music Store™
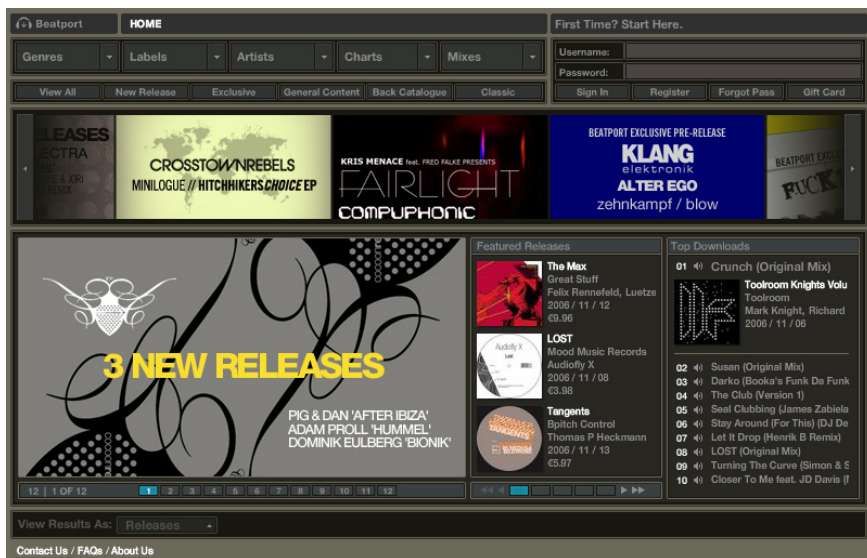
Up until recently it was difficult to purchase new tracks in MP3 format for DJs working with TRAKTOR. Cutting-edge club music has been predominantly released on vinyl, and recording tracks from a 12" to hard disk is a time-consuming process. However, more and more labels are distributing their music in the digital domain and it's finally possible to buy music in digital format at the same time that it is released on vinyl. Sometimes, certain tracks are even available earlier as MP3 or there is additional content available for download that didn't make it to the vinyl release.

In order to give TRAKTOR users a quick and easy way to purchase new tracks, NATIVE INSTRUMENTS joined forces with **Beatport**. **Beatport** is the first authentic digital music store designed to service the evolution of the digital music culture, redefining how DJs and enthusiasts acquire their music. **Beatport. com** allows users to access the world of club music through secure, legal, hi-speed, high quality downloads in MP3, MP4 and WAV formats on a pay-per-download basis. With hundreds of labels and thousands of users worldwide, **Beatport** is recognized as the leader in online digital dance music.

To access the store, simply select the path **Beatport** in the **Tree Window**. Your computer will now access the **Beatport** server and download information that is being displayed in the **List Window**. In order to navigate the interface, just click the relevant buttons and links. If you have not been a member of

Beatport until now, simply click the button labeled **First Time? Start Here** and follow the instructions on the screen.

There are a lot of advantages when buying your music through the **Beatport** store integrated in TRAKTOR:

- It is possible to preview any track available in the store through the integrated **Preview Player** of TRAKTOR.
- While previewing a track, you can see the actual **Waveform** in the **Preview Player** and browse the track by moving the cursor through.
- Entering a search string in the TRAKTOR **Search** field to search **Beatport**.
- Searching for Tracks with the same Title, from the same Label or Artist with the **Find More** button (Read more about the **Find More** button in chapter 8.2 (Searching for tracks).
- It is possible to transfer multiple files with the help of a **Download Manager**.
- All tracks you have bought through the store interface are added to a **Playlist** called **Purchased Tracks**.
- Purchased tracks contain extensive metadata, so there is hardly any need to edit their tags.
- Any track you have purchased is saved automatically in your TRAKTOR **Track Collection**.
- Interrupted transfers can be resumed at any time.

Important: Please keep in mind that you need to be connected to the internet in order to use the **Beatport** store. For further information on registration, please refer to the website **http://www.beatport.com**.

Beatport Browser Buttons

The **Browser Buttons** related to **Beatport** are explained in detail in chapter 8.3 (Editing tracks).

7. The User Interface of TRAKTOR Scratch

7.1 Terminology

Before we dive into the wealth of features and options, let's get an overview about the most important elements of TRAKTOR's interface and where to find the most basic features!

Application Menu
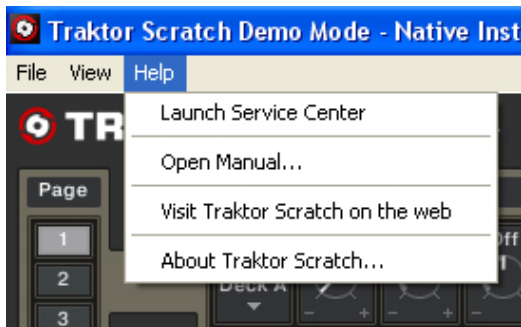
The **Application Menu** gives access to basic functions and information about the software, explained in detail below.

Important: The **Application Menu** is not visible in **Fullscreen** mode, therefore all **File** and **View** options can be reached directly from the TRAKTOR Scratch graphical user interface. However, the **Help** menu can only be accessed from the **Application Menu**.

File

- **Preferences**: Opens the **Preferences** window.
- **Audio Setup**: Opens the **Soundcard** sub-menu of the **Preferences**.
- **MIDI Setup**: Opens the **MIDI Interfaces** sub-menu of the **Preferences**.
- **Exit**: Closes the program after showing a warning message to prevent from accidentally closing the application.

View

- **Layouts**: Choose from 3 different layouts.
- **Fullscreen:** Switches to Fullscreen Mode. Read more about Fullscreen mode in chapter 7.3 (Adjusting the Look of Traktor).

Help

- **Launch Service Center**: Opens the **NI Service Center**, where you can download updates and register your products. Read more about the **NI Service Center** in the separate **Setup Guide** installed in the **NI Service Center** program folder.
- **Open Manual**: Opens the TRAKTOR Scratch user manual.
- **Visit TRAKTOR Scratch on the web**: Opens the TRAKTOR Scratch website on the NATIVE INSTRUMENTS website.
- **About TRAKTOR Scratch**: Opens the **About** window. It contains valuable information about the software such as the exact version number, the serial number and the license type as well as the credits. You can close it by clicking on it.

Note: You can also open the **About** window by clicking on the **TRAKTOR Scratch Logo**.

Header

The **Header** of TRAKTOR Scratch is located directly beneath the **Application Menu**. The elements contained in the **Header** give access to basic functions of the application.

TRAKTOR Scratch Logo

Clicking on the **TRAKTOR Scratch Logo** opens the **About** window. It contains valuable information about the software such as the version number, the serial number and the license type as well as the credits. You can close it by clicking on it.

License Type: Demo
Processor: SSE enabled
Serial Nr.:

Version
0.0.9.080

TRAKTOR *SCRATCH*
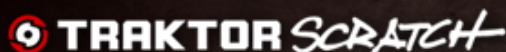
Lennert Schneider, Tobias Baumbach, Dennis Noppeney, Toine Diepstraten, Friedemann Becker, Florian Plenge, Spyros Pappas, Jeremy Peel, Stephan Schulz, Daniel Haver, Stephan Schmitt, Volker Hinz, Michael Kurz, Lorenz Heine, Egbert Juergens, Mate Galic, Philipp Granzin, Goesta Welmer, Christian Kaes, Mike Daliot, Tim Exile, Martijn Zwartjes, Olaf Krzikalla, Martin Jachimowicz, Jens-Uwe Dyffort, Vadim Zavalishin, Nestor Pridun, Florian Schirmer, Michael Hirsch, Franz Detro, Oliver Harms, Rembert Gantke, Irmgard Bauer, Andreas Buff, Florian Schneidmadel, Phil Lewis, Tim Susa, Florian Haver, Bernd Steenken, Jan Heinemann, Nancy Bienhold, Adrian Stoeger, Andreas Gloggengiesser, Tobias Thon, Andreas Lubich, Jan Hennig, Chris Liebing, Lloyd Starr, Marc Wren, Hub Selto, Will Bradley and Jonas Tempel

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Note: You can also open the **About** window in the **Help** section of the **Application Menu**.

System Monitor

In the middle of the **Header** you'll see several displays that give you valuable information about the status of your system:

- **AUDIO:** Displays the Status of the AUDIO 8 DJ (yellow color means no audio device connected, green means AUDIO 8 DJ connected, and red signifies the AUDIO 8 DJ has connection problems.

- **CPU:** Indicates how much of the CPU-Capacity is available in TRAKTOR's internal audio engine. It gives you information about how stressed your system is, and how much headroom you have until you reach the capacity limit. If the bar is fully lit, you most likely will experience audio dropouts.

- **Master:** Displays the **Master Output Level**.

- **Bat:** Gives you a quick information about how much power your battery has left; useful if you're working in **Fullscreen** mode.

- **Rec:** If you're recording it turns green. If the input is clipping it turns red. Reduce the recording gain if the input is clipping.

- **Clock:** Displaying the time depending on your computers time; useful if you're working in **Fullscreen** mode.

Layout Selector

This drop-down menu is used to switch between different screen **Layouts** in TRAKTOR Scratch. Read more about **Layouts** in chapter 7.3 (Adjusting the Look of Traktor).

Preferences Button

This button opens the **Preferences** dialog, which allows you to configure TRAKTOR Scratch to your personal needs. Read more in chapter 15 (Preferences).

Tooltips/ Console

This button toggles the **Tooltips/ Console** window on and off.

Fullscreen Button

Use this button to switch to **Fullscreen** mode. Read more about how to configure **Fullscreen** mode in chapter 7.3 (Adjusting the Look of Traktor).

NI Logo

Clicking on the **NI Logo** opens the **About** window, like clicking on the TRAKTOR Scratch Logo.

Details Section

The **Details Section** is the part directly underneath the **Header**. This window is used to display the messages window as well as many different **Panels** controlling TRAKTOR Scratch.

Find an detailed explanation of all **Details Panels** in chapter 10.5 (Details Pages and Panels).

Decks

The Decks have a header showing **File Info**, **Phase Meter**, a detailed waveform, a graphical track overview (**Stripe**) and a few playback control buttons underneath. They are referred to as **Deck A** for the left deck and **Deck B** for the right deck.

Read more about the **Decks** in chapter 10 (Controlling the Decks).

Browser

On the left you see the **Browser Tree Window**, which contains – top down – the **Search Window** and the **Undo Buttons**, the **Preview Player**, the **Browser Tree** and the **Browser Buttons** as well as the **Status Bar** and the **Progress Bar**.

On the right you see the **Browser Window** with the customizable **Browser Colums** and the **Favorites**.

All detailed information about the browser can be found in chapter 8 (Using the Track Browser).

7.2 Knob and Fader Control

Although each knob and slider in TRAKTOR has its own unique purpose, their behavior is generally the same. You can control each knob or slider with your mouse or by using a MIDI controller or Keyboard-Shortcuts -called **Hotkeys**, explained later in chapter 14 (MIDI and Hotkeys).

Knob and Fader Control

All knobs and faders in TRAKTOR are either controlled by dragging the mouse, by using the mouse wheel or by clicking the small **Plus** and **Minus** buttons next to the knob. Dragging the mouse is a good way to make dynamic changes, whereas the **Plus** and **Minus** buttons allow more subtle changes and are better suited to set a knob to a specific value. Using the scroll wheel can be used for very fine adjustments or for changing the parameter by steps.

Basic Control

Mouse Drag

- Hold your mouse arrow over a knob, then click + hold and drag the mouse up or down. This will move to the knob clockwise or counter-clockwise.
- Click + hold and drag a knob horizontally. The knob will adjust within a finer range.
- Double-Click the knob to return it to its default setting.

Advanced Control

Besides the standard mouse click functions explained above, TRAKTOR Scratch offers advanced functions utilizing **Plus** and **Minus** buttons, the mouse wheel and the right mouse button. If you have a track pad or mouse without a second button, you can utilize these functions by pressing and holding the Ctrl-Key while clicking.

Plus and Minus Buttons and Mouse Wheel

- Each click on the **Plus** (+) button next to a knob moves the value of the knob incrementally up.
- Each click on the **Minus** (-) button next to a knob moves the value of the knob incrementally down.
- Turning the mouse wheel will adjust the parameter by one increment for each step of the wheel.

Sensitivities

TRAKTOR Scratch offers five sensitivities for the incremental control of parameters.

- Right-/ Ctrl-Click the **Plus** button to open a menu of five sensitivity options: **min**, **fine**, **default**, **coarse**, **switch**.
- Select one of the options.
- Click the **Plus** and **Minus** buttons or use the mouse wheel to see how the behavior of the knob has changed.
- The small bar of dots below the knob – only visable, when you hover over the control – change accordingly.
- One single dot remains if you have chosen **min**, the full bar of 9 dots appears, if you have chosen **switch**.

Right-/ Ctrl-Click Functions

- Right-/ Ctrl-Click + hold and drag a knob. A **Ghost Pointer** will appear in red, although the knob itself will not move.
- Keep holding the right mouse button, then left-click and hold. This will bring the knob to the value of the **Ghost Pointer**.
- Keep holding the right mouse button and let go the left mouse button. The knob will return to its last position and the red **Ghost Pointer** remains visible.
- If you want the knob to stay at the value of the **Ghost Pointer**, simply release the right mouse button after the knob has reached the value of the **Ghost Pointer**. The red **Ghost Pointer** will disappear, and you can depress the left mouse button as well.

This function is good for jumping quickly between two values.

7.3 Adjusting the Look of Traktor

Whether you would like to take advantage of advanced features or simply wish to perform basic mixing, the TRAKTOR interface can be adjusted for your specific needs.

Scalability

The TRAKTOR Scratch interface can be scaled to the size of your liking.

- Click + hold and drag the bottom-right corner of the TRAKTOR window. This will expand and/ or contract the TRAKTOR interface while simultaneously resizing all TRAKTOR sections.

Layouts

A **Layout** is the way in which the TRAKTOR interface is configured. With TRAKTOR Scratch, you are able to switch between 3 different layouts.

Switching between Layouts

Click on the **Layout** box for opening the drop-down menu showing the available layouts.

Select one of the available **Layouts** and observe the changes in the interface.

The 3 **Layouts** are optimized for typical situations:

- **Performing**: Standard Layout for going live. You can see the Details panels and the Favorites for fast access to your most important playlists.
- **Playback**: Plain and simple – the Details panels are off as well as the Favorites, this space helps you to see more of your playlist.
- **Browsing**: The Details are switched off and the Decks are minimized, leaving the space for the Browser. Ideal for browsing through your Track Collection and sorting tracks in your Favorites Playlists.

Note: You can always minimize or maximize the **Decks** by double-clicking on the **Header** of one of the **Decks** (where the letters **A** and **B** are located).

Details Section

The **Details Section** has 4 individual pages. TRAKTOR Scratch is preconfigured for screens having a width of 1024 pixels. On many current screens the **Details Section** will therefore be only partly filled.

Following **Panels** are available:

- **Page**: Select here one of the four **Details Pages**.
- **Cue Edit**: Set, save and rename **Cue Points**, delete them or navigate between them.

- **Cue List**: Direct access to the first six **Cue Points** of a track for easier navigation.
- **BeatJump**: Performs **BeatJumps** forward and backward depending on the jump size.
- **BPM**: Tempo adjustment functions like setting a **Beatmarker** and establishing a **Beatgrid**.
- **Master**: Master audio section for controlling main mixer functions
- **Audio Recorder**: Record audio from internal mix, microphone or external mixer sum.
- **Key**: Contains controls for changing the **Key** of your tracks and performing time stretching.
- **Send 1 and 2**: Switch between TRAKTOR Scratch send effects.
- **SCRATCH**: Find here SCRATCH related information, like the calibration status and the assignment of the decks. Click on the circle to switch from **Scope** to **Sticker View**.
- **Tooltips/ Console**: In **Tooltip Mode** it displays information about a particular feature and is especially useful for the new user. Hover your mouse arrow over any control feature of the TRAKTOR Scratch interface to get information about a feature. In **Console Mode** it displays software status information. Different to the other panels, you can open and close the **Tooltips** individually via the **Tooltip** button in the **Header**.

File Info

- The upper left part of each **Deck** displays the title and artist name of the playing track. On the right side, two more fields display the remaining time and the actual BPM of the track.

Wave Display Options

The **Waveform** of a track can be customized in the following section of the preferences: Open *Preferences > Appearance > Wave Display Options*.

Highlight Beatmarkers

With this option checked, the small white lines on every beat get highlighted.

- Load a track in **Deck A**.
- Move the **Preferences** window beneath the **Deck**.
- Check the option *Highlight Beatmarkers*
- Click on **Apply**.

- Observe that the white, vertical lines on every beat are now brighter than before.

Show Minute-Markers

With this option checked, every minute will be marked with a small, vertical, white line in the overall waveform (**Stripe**), giving you a visual hint of how long your track will go on.

- Load a track in **Deck A**.
- Move the **Preferences** window beneath the **Deck**.
- Check the option *Show Minute-Markers*.
- Click on **Apply**.
- Observe that the white, vertical lines every minute of the track in the overall waveform (**Stripe**).

Channels

This option changes the appearance of the waveform.

- Load a track into a **Deck**.
- Move the **Preferences** window beneath the **Deck**.
- **Beats** uses a single color to display the beats of the track.
- **Beats and Highs** uses two color shades to display beats and highs. The lighter, semi-transparent shade represents the highs, the solid color the beats.
- **Beats and Envelope** displays the beats and their envelopes to give a better impression of the rhythmic structure of a track.
- Press **Apply** to preview the change.

Colors

It is possible to select a color scheme for the **Waveforms** that fits your personal taste and working environment. When using TRAKTOR in daylight or with reflections on the screen it makes sense to use the highest contrast between **Waveform** and background, whereas it might be easier for the eyes if you use a more subdued color variation if you are working in a dark DJ booth or at home.

- Load a track into a **Deck**.
- Move the **Preferences** window beneath the **Deck**.
- Choose **Yellow**, **Blue** or **Brown** as **Color**.
- Press **Apply** to preview the change.

Track End Warning Time

By setting a **Track End Warning Time**, TRAKTOR will flash the **Waveform Stripe** up to 60 seconds before a **Deck** stops playing. This is very helpful preventing a track running out unnoticed.

- Open *Preferences > Wave Display Options*.
- Set the desired amount of seconds by moving the slider next to **Track End Warning Time**.
- Click **Apply** to apply the changes.

PlayMarker Position

This slider adjusts the position of the vertical, red line called **Playmarker**. This is where your track starts to play from.

- Load a track into a **Deck**.
- Move the **Preferences** window beneath the **Deck**.
- Move the slider to a different value.
- Click **Apply** to preview the result.

Miscellaneous Display Options

Other adjustable settings of TRAKTOR's appearance can be found in *Preferences > Appearance > Miscellaneous*.

Fullscreen Mode

You can use the scale method to stretch TRAKTOR to fit your whole screen or you can use **Fullscreen** mode. The advantage of using **Fullscreen** mode is that nothing on your computer screen will be visible (or controllable) other than the TRAKTOR interface. For instance: If using a Mac, the dock will not be visible. If using Windows, the taskbar and start menu will not be visible.

This looks great if you're performing live!

- To enter and exit **Fullscreen** mode: Click the **Fullscreen** button located at the top of the TRAKTOR interface. This will fill your entire screen with the TRAKTOR interface.
- If your screen resolution is higher than 1024x768, the controls of TRAKTOR may seem too small for you. In this case you can select 1024x768 in the TRAKTOR **Preferences** menu. With this selected, **Fullscreen** mode will fill your screen with the TRAKTOR interface at 1024x768 resolution, making the controls larger and more visible.
- In the same **Preferences** page you can also set **Fullscreen** mode to default by selecting the option **Switch to Fullscreen on Startup**.

Show value when over control

With this option checked, hovering with your mouse over a control displays the current value, if it's not checked you can only see the name of the button, e.g. **Amt** for amount.

- Check the option *Show value when over control*.
- Click on **Apply**.
- Hover over control buttons like the effect knobs and see the difference.

Font Size

You can customize the **Font Size** used in the **Browser Tree** and the **Playlist** windows.

- Click on **Font Size** to choose between the font sizes from **Small** to **Huge**.
- Click **Apply** to preview the change.

Hide Beatport

With this option checked, all **Beatport** related things are taken away from the GUI. This means the **Beatport Find More** button as well as the **Beatport** shop.

- Check the option *Hide Beatport*.
- Click on **Apply**.
- Look at the **List Window** of the track browser to see the difference.

Reset hidden dialogs

Whenever a dialog in TRAKTOR opens, e.g. if you try to delete a track, you can put a checkmark in the field "Do not show again". If you do so you won't see this dialog again.

Use this option whenever you want to reset this, so that all security dialogs show up again.

Customizing the List Window of the Browser

The content of the **List Window** can be sorted by any of the visible columns. Clicking a header inverts the sorting sequence of the column.

You can hide and show 27 attributes of a track:

- Right-/ Ctrl-Click on a header of the **List Window**.
- Check an attribute that you would like to have represented as column in the **List Window**.
- Uncheck those attributes that you want to hide.
- Repeat this action until you have configured the headers you want to be visible.
- To change the size of a column, drag the line next to it.
- To change the relative position of a column, click + hold and drag it horizontally.
- Observe the red line indicating where the column will be inserted when releasing the mouse button.

8. Using the Track Browser

Whether you are at home, in the studio or DJing at a live gig, the **Track Browser** is designed to help manage your songs, giving you the easiest, quickest access to your songs, **Playlists** and **Favorites**.

8.1 Preparing the Set

Importing your Tracks

Managing your tracks in the TRAKTOR **Collection** represents a huge advantage compared to simply organizing your tracks in folders. The **Track Collection** is a file that categorizes and provides references to the music files on your computer, making them easily accessible through various browser features. Importing a track into your **Collection** does not actually copy the music file - instead it adds the file to the **Track Collection** list making it easily manageable and searchable. Each row in your **Collection** references a track on your hard drive and contains information about the track such as its location (**File Path**) on your computer and standard ID3 tag properties such as **Artist**, **Title**, **Album**, etc. However, the TRAKTOR **Collection** allows for even more specific information such as **BPM** (beats per minute), original song **Key**, personal **Rating** and more.

If you have organized your music in a set of special folders like **My Music**, it is advisable to reveal these directories to TRAKTOR Scratch. Hereafter you can use the function **Import Music Folders** to synchronize TRAKTOR with recently added tracks or with a changed folder structure within this set of folders.

- Open *Preferences > Browser Preferences > Data Location*.
- Click **Add** on the bottom of the right window.
- Browse to your **Music Folders**.
- Confirm with **OK**.
- Repeat to add all of your **Music Folders**.

Note: Subfolders are automatically included in the scan. You don't need to add subfolders to this list.

Do the following to import your **Music Folders**:

- Right-/ Ctrl-Click the **Collection** icon in the Browser Tree.
- Choose **Import Music Folders** from the menu.

TRAKTOR Scratch offers other alternative methods to import single tracks or a special folder that is not part of your conventional **Music Folder** structure:

- Drag and drop a track or a folder from your Mac Finder or Windows Explorer onto the **Collection** icon in the TRAKTOR **Browser Tree**.
- Drag and drop a track or a folder from the tree structure below the TRAKTOR Explorer icon representing all drives connected to your computer onto the **Collection** icon.
- In the same manner you can right-/ ctrl-click on a sub folder of the TRAKTOR Explorer icon or on a track listed in the window on the right side and choose **Add to Collection** from the menu.
- Any track that is played in a **Deck** or added to the **Current Playlist** is also added to the **Collection**.

Within the **Collection**, the tracks are detached from their physical location on the hard drive and can be represented in several independent and overlapping ways:

- Underneath the **Collection** icon, you can see the tracks grouped by **Artists**, **Releases**, **Labels** or **Genres**. A number indicates the current number of tracks within this category.
- A track can be contemporarily listed in several **Playlists**. **Playlists** represent a personalized sorting method often related to the circumstances for playing these particular tracks. They can be seen as your virtual record crates.
- Search results are a further way of displaying your **Collection**.
- Finally in the **List Window** on the right, tracks can be sorted by various criteria, such as **BPM**, **Release Dates** or **Ratings**, giving an additional value to search results.

Data Location

As you will learn, TRAKTOR Scratch has functions that create and reference certain file types. These file types are stored in their own default directories. However, you can change the directory paths by using the **Data Location**

Preferences menu.

- Open *Preferences > Browser Preferences > Data Location*.
- You can change the directory path for the following file types by clicking on the button with the exclamation mark (**!**) after the current path:
  - **Collection**: the file path TRAKTOR Scratch follows for loading and storing **Collection** information.
  - **Playlists**: the file path TRAKTOR Scratch follows for **Playlists** (described in the next section).
  - **Recordings**: the file path in which TRAKTOR Scratch stores the **Recordings** you make in audio format.
  - **iTunes**: the file path to your **iTunes Library** (this path has to be identical with the settings in your **iTunes**).
  - **Beatport**: the file path in which TRAKTOR Scratch physically stores all songs downloaded from **Beatport** through the TRAKTOR interface.
  - **Music**: Here you can specify the location of folders and hard drives to be scanned for files such as MP3, AIFF, WAV, M4A, and more during the **Music Folders Import**.

Analysis

The analysis scans the entire track and returns the following information:

- **BPM Estimate**: The **BPM Estimate** is more or less accurate according to the type of music. Read more about verifying the **BPM Estimate** and about how to create a **Beatgrid** in the next chapter.
- **Gain Value**: each track has a perceived loudness, based on its musical properties of the track and on the involved mastering techniques. The **Gain Value** established during the analysis is a very accurate estimation of the optimal setting of the channel **Gain** knob to match the loudness of a track to 0dB. To use this **Gain** estimation when loading a track into a **Deck**, enable the **Auto Gain** function, available in each channel **Details** panel and in the **Master Details** panel.
- **Stripe**: The small representation of the **Waveform** underneath the wave display is created by the analysis process. If the **Stripe** of a track is missing it has most likely not yet been analyzed.

Auto Analysis

Open *Preferences > Browser Preferences > Collection Preferences* for options on automatic track analyzation.

Read more about the **Analyze** options in chapter 15 (Preferences).

Pre-listening to a Track from your Collection

Usually you will pre-listen to a track in TRAKTOR SCRATCH using a **Cue Button** or **Switch** on your external hardware mixer to pre-listen the opposite **Deck**.

However, the AUDIO 8 DJ also offers a **Headphones Output** that you can use for pre-listening.

This can be done while one or both **Decks** are playing. Sound from the **Preview Player** will be heard through the **Headphone Outputs 7/8**.

- Load a track into the **Preview Player** by clicking the **Headphone Icon** in the **List Window**, double-clicking on the track or using drag-and-drop.
- The **Preview Player** will display the **Waveform** of the track.
- Scroll through the track by dragging the red slider through the **Waveform**.
- Press the **Play** button to the right of the player to pause and restart playback.
- If you like the track, load it into **Deck A** by dragging & dropping it from the **Preview Player** onto **Deck A** or by right-/ ctrl-clicking the track title in the **List Window** and selecting **Load to Deck A** from the menu.

Note: To hear tracks played in the **Preview Player** over your headphones, make sure that your headphones are connected to the **Headphones Outputs** of your AUDIO 8 DJ and that the **Headphones Volume** knob is turned up. Also check that the **Source** knob on the AUDIO 8 DJ is switched to **Out 7/8** so you can monitor on the AUDIO 8 DJ.

Note: If you don't see the column with the **Preview Icon**, right-/ ctrl-click the header of the **List Window** and make sure that the option '**Prelisten'** is checked.

To remove a track from the **Preview Player**, click again on the **Headphones Icon** in the **List Window** or double-click again on the track.

8.2 Searching for tracks

One of the quickest ways to find a specific track is to use the **Search** function. Rather than browsing through folders, you can type a key word into the **Search** field and let TRAKTOR search your **Collection**.
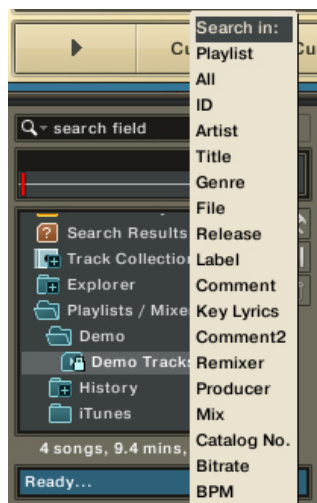
Simple Search

- Click in the **Quick Search** field.
- Type anything related to the track you are searching for in the **Search** field such as **Track Name**, **Artist Name**, **Album Name**, etc. Hit the *Enter* key on your computer keyboard. TRAKTOR Scratch will search your entire **Collection** and display all matching files in the **List Window**.
- Entering more than one word will return the tracks containing all these words.

Refine

A search completed with the *Enter* key searches the whole **Collection**. You can refine a search to a specific subset of the **Collection** by completing the search with the selection of one category in the **Refine** menu:

- Type a word into the **Search** field.
- Click the **Refine** button behind the **Search** field and choose a field from the drop-down menu.

The available options reflect the relevant **Browser Columns**:

- **Playlist**: Searches within the currently displayed **Playlist** only. This option can also be used for refining a search by searching only within a search result.
- **All**: Searches the whole **Collection**.
- **Artists**: Tries to match the search string with the **Artist** fields only.
- Same for **Title**, **Genre**, etc.

Note: A search for **BPM** gives back tracks with similar values, which means a range of +/- 2.5 BPM of the entered value.

Magnifying Glass

In the **List Window**, you will notice a small **Magnifying Glass** in many of the track property fields. This is used to search tracks in your collection with the same entry in that field.

	#	Title	Artist	Time	BPM	Genre	Comment
A ✓ ◆	1	Keep_on (short version)	Ronald van Aggelen	02:01	135.000 (100%)	Techno	
B ✓ ◆	2	Back From Exile (short version)	Breitbannt	02:12	131.020 (100%)	Techno	
◆	3	Pacemaker (short version)	Arthur Oskan	02:28	136.410 (100%)	Techno	
	4	Wired (short version)	Raumton	02:40	131.998 (100%)	Electronic	[nore 005] no-response.org

- In the **List Window**, click the **Magnifying Glass** next to an **Artist Name**.
- TRAKTOR will search your entire collection for tracks of the same **Artist**.

Important: Clicking the **Magnifying Glass** next to a **BPM** value gives back tracks with similar BPM values, which means a range of +/- 2.5 BPM.

Beatport "Find More" Button

In the **List Window**, you will notice a small downwards pointing arrow in many of the track property fields. This is the **Find More** button, used to search tracks within the **Beatport** store that have the same entry in that field.

	#	Title	Artist
A ✓ ◆	1	Keep_on (short version) ↓	Ronald van Aggelen ↓
B ✓ ◆	2	Back From Exile (short version) ↓	Breitbannt ↓
◆	3	Pacemaker (short version) ↓	Arthur Oskan ↓
	4	Wired (short version) ↓	Raumton ↓

- In the **List Window**, click the **Find More** Button next to an artist's name.
- TRAKTOR Scratch will search the Beatport store for tracks of the same artist.

Note: If you don't see the **Find More** button, turn on the **Beatport** store in *Preferences > Appearance > Miscellaneous* by unchecking the box *Hide Beatport*.

Search History

During a TRAKTOR session, the **Search** function recalls each search expression you have searched for in a temporary list.

- Type in a few search expressions and confirm with *Enter*.
- Repeat this a few times.
- Click the small downwards-pointing arrow left to the **Search Field** to see the list of your search expressions.

Track Icons

It is especially important to keep an overview of your set with one look when you are performing in front of an audience.

The **Icon** column gives valuable information about the history of a track and can be sorted to align the tracks in their historical sequence. Here is a list of each **Icon** and its meaning.

- A **Diamond** shows that the track is listed in the **Current Playlist** but hasn't been played yet. This is modeled after the common habit of vinyl DJs who place the records they want to play in the near future at a 90 degree angle in their crate.
- The letters **A** and **B** identify the tracks currently loaded into the **Decks**.
- A **Check Mark** means that the track had been played in one of the two **Decks**.

- An **Exclamation Mark** identifies tracks not found at the files' previous location. A reason for this could be that a storage medium is unavailable, the location of the track has been changed or the track has been renamed.
- The right-pointing **Arrow** indicates that this is the next track in the current playlist.

Sorting by this column orders the tracks as follows:

- Already played tracks on top.
- Currently playing tracks in the center.
- Queued tracks waiting in the **Current Playlist** to be played underneath.
- Non queued tracks below.
- Missing tracks at the bottom.

Consistency Check Report

The **Consistency Check Report** provides an overview of the current state of your **Track Collection**, providing options to help you in managing it.

- In the **Tree Window**, right-/ ctrl-click on the **Track Collection** and select **Check Consistency** from the menu.
- Once TRAKTOR has checked consistency, the **Consistency Check Report** will appear showing the totals of its findings.

Show Overview

- **Total Tracks**: The total number of tracks in your **Collection**.
- **Tracks Missing**: The total number of tracks that have been deleted from your hard drive or moved from their original location.
- **Tracks Not Analyzed**: The total number of tracks that have not been analyzed.
- **Tracks Missing Stripe**: The total number of tracks that have been imported and analyzed but their **Overview Waveform (Stripe)** has been moved or deleted.
- **Total Tracks To Analyze**: The total sum of **Tracks Missing Stripe** and **Tracks Not Analyzed**. This is the total amount of tracks you need to analyze.

You can also view a list of **Missing Tracks** or a list of your **Not Analyzed Tracks** only.

Missing Tracks

- Click on the **Missing Tracks** tab.
- The **Consistency Check Report** window will display each missing track and its attributes.
- Use the horizontal scroll bar to expose more property fields.
- If you no longer want these missing tracks to be referenced in your **Collection**, delete their references by clicking the **Remove Missing Tracks** button.

The **Consistency Check Report** allows you to relocate the references to tracks that are missing from your **Collection**.

- Click the **Relocate Missing Tracks** button.
- A standard operating system dialog window will appear.
- Use this to browse your hard drive for the folder in which your missing tracks were moved.
- To find multiple tracks in different folders, choose the top level folder in which they are stored. You can even choose your main hard drive folder.

Note: Relocating tracks in a folder that contains many subfolders can be a lengthy process. Don't hesitate to interrupt relocation - this will not damage your **Collection** consistency.

Tracks to Analyze

- Click on the tab labeled **Tracks To Analyze**.
- The **Consistency Check Report** window will display each track that has not been analyzed.
- After viewing the list totals, you can choose to either **Relocate your Missing Tracks** or **Remove the Missing Tracks** from your **Collection**.

Show Consistency Check on Startup

The **Consistency Check Report** can be set to display each time you open TRAKTOR. Please be aware that this function could be unpractical if you are using TRAKTOR Scratch whilst performing live and you want keep the startup time to a minimum.

- Go to *Preferences > Browser Preferences > Collection Preferences*.
- Put a check in the box labeled **Show Consistency Check Report on Startup** and choose **OK**.

- The **Consistency Check Report** will now open each time you start TRAKTOR Scratch.

8.3 Editing tracks

Whether you are performing live or working in the studio, TRAKTOR Scratch gives you the tools to keep your **Track Collection** completely organized.

Track Properties

Each track in your **Collection** has **Properties** such as **Song Title**, **Artist Name**, **Album Name**, etc. TRAKTOR Scratch allows you to edit and add **Track Properties** with two methods:

Inline editing Track Properties directly in the List Window

- In the **List Window**, click on a track to highlight the track.
- Click again in the field you want to edit, e.g. the **Artist Name**.
- A cursor will be placed inside the text of the field.
- Edit the **Artist Name** and hit the *Enter* key on your keyboard to exit **Inline Editing** mode.

Editing Track Properties in the Edit Dialog

Not all **Properties** of a track are visible in the **List Window**. To get access to all available **Properties** of a track, use the **Edit Dialog**. This dialog also allows to contemporarily edit a selection of tracks, as described further below.

Editing a Single Track

- Select a track in the List Window by clicking it.
- Right-/ Ctrl-Click on the selected track and choose **Edit** from the pop-up menu or use the respective **Browser Button**.

- The **List Window** turns into the track **Edit Dialog**.
- Edit the desired information for your track.
- Use the drop-down menu next to a track **Property** to select a **Property** already stored in your **Track Collection**.
- At the bottom of the dialog you find a button called **Restore** to undo any changes you have made. To apply the changes, click the button labeled **Apply** or use the respective **Browser Button**.
- When you are done either confirm with **OK** or abort by pressing **Cancel**. Of course you can use the the respective **Browser Buttons** here as well.

Editing a Selection of Tracks

- If you want to edit all tracks of an **Album** or of a **Playlist**, select them and choose **Edit** from the context menu, (just as you did for editing a single track) or use the respective **Browser Button**.
- In the **Edit** dialog you will notice that most of the checkboxes beneath the attributes are unchecked and most of the fields void.
- At the bottom of the **Edit** dialog you will notice 3 new buttons called **Previous**, **Select All** and **Next**. The buttons are used to browse your selection of tracks.
- The checkboxes indicate which of the attributes have the same value among the selected tracks. At the same time they indicate that the field will be written into the **Collection** properties when applying the changes.
- If you want to change an attribute globally for all selected tracks (for example the way to write an **Artist Name**), edit the **Artist** field, make sure that the box beneath is checked and press the **Apply** button.
- If you want to edit the tracks of your selection one by one, use the **Previous** and **Next** buttons at the bottom of the dialog to step through the list.
- Clicking **Restore** will undo your changes.
- Clicking **OK** will confirm all your changes.

Writing Attributes into Music Files - ID3 Tags

As described in the introduction, the TRAKTOR **Collection** is a database containing references to the physical location of your tracks as well as all attribute information about them. Many music file formats, such as MP3,

allow you to store information about the track in the file itself. This is done by special text tags embedded at the beginning or at the end of the music portion of the file.

TRAKTOR Scratch does not need these kinds of tags because all relevant information is stored in the **Collection** file, but as soon as you move a track to another computer the attributes of the track get detached from the music file itself.

It can therefore be useful to additionally write the properties into the track itself. Not all file types support this kind of embedded information, for instance AIFF and WAV files do not support it.

Other file types support a proprietary format of tags, such as FLAC that TRAKTOR Scratch does not fully support yet. ID3v2, which is the name for the most common type of embedded tags used in MP3 files, is fully supported by TRAKTOR Scratch. More file types will be supported with future updates.

Find a complete list with all supported file formats here:

http://www.native-instruments.com/traktor.info

Writing **Collection** attributes into file tags should be used for:

- Transferring tracks to other computers.
- As backup of the information contained in the **Collection**.

Reading tags from files is automatically done when importing tracks into the **Collection** or when browsing tracks in the TRAKTOR Explorer. Manually triggering the readout of tags from the files is mainly used for restoring unwanted changes made in the TRAKTOR Scratch **Collection**.

Browser Buttons

Even though all functions that can be applied to tracks or selections of tracks are available in the context menu - accessed by right-/ ctrl-clicking on the selected tracks - the most important functions have been provided also as buttons in a special section between the **Browser Tree** and the **List Window**, called **Browser Buttons**.

The **Browser Buttons** are not always the same - the functions of the buttons change according to the currently selected view in the **List Window**.

Edit

Clicking on **Edit** opens the **Track Edit** dialog for the selected set of tracks as described above.

Analyze

Triggers the analysis of the selected tracks. The analysis scans the entire track and returns several pieces of information about it. The analysis scans the entire track and returns several pieces of information about it. Read more about **Analyzation** in chapter 15 (Preferences).

Delete

Clicking on **Delete** will remove the selected track from your **Track Collection** or **Playlist**.

- Click on a track in the **List Window** to select it.
- Click on the **Delete** button.
- To remove more than one track, select multiple tracks in the **List Window** and click the **Delete** button.

Note: This will remove the track from the **Playlist** only. It will not delete the track from your hard drive!

The following **Browser Buttons** can only be accessed after clicking the **Edit** button or chosing **Edit** from the context menu:

Confirm Editing

Confirms all editing changes and returns to the playlist view.

Cancel Editing

Cancels the editing operation. All changes made after the last **Apply** action are discarded.

Restore Metadata

Aborts current changes and restores track attributes from collection.

This is especially useful if you accidentally deleted entries in one of the attributes' fields.

Read Metadata

Imports metadata from selected music files into the **Collection**.

Note: Not all file types are supported by this operation.

Write Metadata

Writes metadata information into music files. Choose from 3 writing modes in *Preferences > Browser Preferences > Collection Preferences*.

Note: Not all file types are supported by this operation.

Apply

The editing changes are applied and stored in the **Collection**.

The following **Browser Buttons** can only be accessed from the **Beatport** icon. If you don't see the **Beatport** icon, uncheck **Hide Beatport** in *Preferences > Appearance > Miscellaneous*:

Buy Previewed Track

Buy the track currently loaded into the preview deck.

Check Downloads

Checks your download queue for uncompleted downloads.

Refresh Beatport

Refreshes the **Beatport** shop. Use after connection problems.

Other Track Options

Relocate

Opens a dialog in which you can navigate to the folder containing the missing track(s). Very useful if you restructured your **Music Folder**.

Search in Playlists

Searches the selected track(s) in all playlists and returns a list with all playlists containing the selected track(s).

Add to Playlist as Next

Adds the selected track(s) as next to the **Current Playlist**.

Add to Playlist at End

Adds the selected track(s) at the end of the **Current Playlist**.

Reset Played

Clicking **Reset Played** will reset the **Display Icon** next to any track that has been played. It will then appear as *not played*. This can be used if you want to replay a track later in your set, avoiding confusion of it being marked as having already been played.

Note: The played state of your tracks will be reset automatically after every session, i.e. closing and re-opening TRAKTOR Scratch will reset the played state.

Show in Explorer/ Finder

By right-/ ctrl-clicking on a track you can choose **Show in Explorer/ Finder** from the context menu. This will display the track in the Windows Explorer or Mac Finder, according to your operating system.

Deleting Tracks from your Hard Drive

The TRAKTOR Scratch Browser has no features allowing the physical deleting of tracks from your hard drive.

8.4 Working with the Collection and Playlists

Playlists are an alternative way of organizing your **Collection**. Instead of creating tags for tracks and retrieving them via search strings, you can create groups of tracks inside your **Collection** by creating **Playlists**. These can be seen as virtual record crates, but contrary to a physical track contained on a vinyl record, a virtual track can be contained in as many **Playlists** as you want and you won't have to put it back into the shelf. A **Playlist** can be shuffled or ordered in any way you like. Further advantages are saving and loading as well as exporting a playlist to transfer it to another computer.

- Right-/ Ctrl-Click on the **Playlist/ Mixes** folder icon in the **Browser Tree**.
- Choose **Create Playlist** from the context menu.
- Type the name of your **Playlist** in the following window.
- Choose **OK**.

- Your new **Playlist** will appear as a subfolder under the **Playlist/ Mixes** folder.

Playlist Options

By right-/ ctrl-clicking on a playlist you find the following options in the popup menu:

- **Lock/ unlock** the playlist. Changes in a locked playlist are only temporary and will not be saved. A locked playlist has a **Lock Icon** next to it. To save changes to a locked playlist you have to unlock it beforehand.
- **Analyze** the tracks contained in the selected playlist.
- **Relocate** the tracks contained in the selected playlist.
- **Save** the selected playlist.
- **Rename** the selected playlist.
- **Clear** the selected playlist, i.e. remove all tracks from the playlist.
- **Delete** the selected playlist. This will not actually delete the tracks from your track collection**,** it will only delete the playlist file.
- **Reset Played State** removes all track icons (played, cued etc.) from the icon column in the track browser.
- **Add to Collection** adds all tracks contained in the playlist to the collection.
- **Read File Tags (Async)** reads out the ID3 tags of the contained tracks. This is going on in the background and does not affect the performance.
- **Write File Tags (Async)** writes ID3 tags to the contained tracks, depending on the setting in *Preferences > Browser Preferences > Collection Preferences > ID3 Tag Mode*. This is going on in the background and does not affect the performance.
- **Add to Playlist as Next** places all tracks contained in the playlist as next in the current playlist.
- **Add to Playlist at End** places all tracks contained in the playlist at the end of the current playlist
- **Export Playlist** exports the tracks contained in the selected playlist along with the playlist file (playlist_name.nml) to a place of your destination. This way you can transport a playlist to another TRAKTOR Scratch computer without losing data.
- **Export Printable** exports a HTML-file containing a list with the tracks of the selected playlist with customizable columns.

Sorting your Playlist

You can sort the **Playlist** by any column of the **Browser**.

When sorting a **Playlist** for example by the **BPM** column, it will be sorted in ascending or descending order by **BPM**.

Rearranging Playlists by Drag &Drop

- Click-hold and drag a track in the **Playlist** up or down
- Observe the red line showing where the track will drop when you release the mouse button.

Note: To perform a rearrangement by drag & drop, the playlist needs to be unlocked. If you observe a **Forbidden** sign when trying to drag & drop a track to another place within the playlist, you need to unlock it before.

Favorites

The **Favorites** window is a navigational tool and is located at the bottom of the interface. If you don't see the **Favorites**, you're probably in the **Layout Playback**. Choose the **Layout Performing** or **Browsing** via the **Layout Selector** in the **Header**.
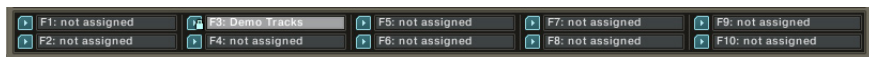
Each **Favorite** can be assigned to a hotkey - by default these are the first 10 F-keys.

Three of the **Favorites** are pre-assigned and cannot be changed:

- F1: Current Playlist
- F2: Track Collection
- F9: Audio Recording

You can assign any of the **File Browser** folders or a playlist to the remaining seven **Favorites** (F3 – F8 and F10).

Do the following to create and use a **Favorites'** folder:

- Click the **Playlists** folder to browse its contents.
- Click on the **Demo Content** folder to expose the **Demo Playlist**.
- Click, hold and drag the **Demo Playlist** name on top of the F3 **Favorite** icon.

- F3 will now display the **Demo Playlist** icon.
- From now on, you can access this folder at any time by pressing the F3 key on your computer keyboard or by clicking on the **Favorite** icon with the mouse.
- The contents of the **Demo Playlist** will then appear in the **List Window**.

Note: **Dragging** another playlist on an already assigned favorite will **replace** the favorite playlist with the new playlist.

Shift-dragging another playlist on an already assigned favorite will **merge** the content of the favorite playlist with the content of the shift-dragged playlist.

Note: Some computer keyboards require you to hold down the Function (fn) key in order to use the F Keys.

History Playlist

The History Playlist is a special **Playlist** that gives you information about what tracks you played during a gig.

It has a timestamp and will be created after every session you make, so that every time you close TRAKTOR you'll find the history of what you've done the next time you open TRAKTOR.

It is very useful, if you have to handout a **Playlist** of the actual played tracks of an evening or just to review, what you were doing last night.

- In the **Tree Window**, double-click on the **Playlist/ Mixes** folder and then another double-click on the **History** folder.
- If this was not the first time you opened TRAKTOR, you'll see several **Playlists** with a timestamp at the beginning for every session you made with TRAKTOR.
- **History Playlists** are *locked* by default.

If you're working with TRAKTOR several months, this list can become very large, often containing **Playlists** with only a few tracks.

It's a good habit to rename **History Playlists** of successful evenings, which makes finding them way easier than only with the timestamp name.

You can do everything you're used to do with **Playlists**, including deleting a **Playlist**, but for the **History Playlists**, the following trick might suit you better:

- In the Windows Explorer/ Mac Finder, navigate to your TRAKTOR folder and open the **Playlists** folder, and in there the **History Folder**.
- You see the list of your **History Playlists** so far.
- As a rule of thumb, every track in a list equals around 1 kb. This means, all **Playlists** with 5 or below kb will have most likely not more than 4-6 tracks contained in them.
- And usually they can be deleted, making browsing in the **History Playlists** more convenient.

Current Playlist

The **Current Playlist** is a special **Playlist** in which you find tracks that were played recently or you plan to play in near future.

Whenever you play a track it will be placed automatically in the **Current Playlist**.

- If you found some tracks you want to play not as next track, but in the near future, drag-and-drop them onto the **Current Playlist** for quicker access.
- Drag the tracks in the **Current Playlist** in the desired order, see a red line indicating, where the track will drop in.
- Right-/ Ctrl-Click on the **Current Playlist** and choose **Clear** to remove all tracks from the **Current Playlist**.

Track Collection

The **Track Collection** is a special **Playlist** that contains every imported track, regardless of the folder structure of your harddrive.

This makes it sometimes easier to search for tracks or get an general overview while browsing for tracks you want to put in a **Playlist**.

The Track Collection is the heart of TRAKTOR, containing every song of yours in its database, making it easy to search – and to find!

iTunes Import

TRAKTOR Scratch allows you to import your iTunes library as well as individual iTunes playlists.

Make sure your iTunes library path is identical with the file path chosen in *Preferences > Browser Preferences > Data Location*.

And all you have to do now is to click on the iTunes icon in the **Tree Window** of the **Browser**!

Connecting your iPod

TRAKTOR Scratch allows you to not only play non-DRM protected tracks from your iPod, but also from playlists stored on your iPod.

Start TRAKTOR Scratch, and plug your iPod into your computer. TRAKTOR will then recognize your iPod and display the iPod icon in the browser tree - this may take up to 10 seconds. When first selecting the iPod, **Loading** will appear to let you know that TRAKTOR Scratch is reading the track and playlist information. The word **Queued** next to an iPod playlist means that it will be read next. When finished, you will be able to select any non-DRM protected track to play as you normally would from your hard disk drive.

Note: Plugging and un-plugging the iPod while tacks are playing may cause the audio to stop briefly. Take extreme care not to unplug the iPod when playing a track from it!

9. Backup and Transfer of your Collection

9.1 TRAKTOR File Formats and TRAKTOR Folder

TRAKTOR creates the following file types on your harddrive:

- ***.nml** = all playlists have this extension, the **Collection**, the **History** playlists and user-created playlists
- ***.tks** = extension for keyboard or midi hotkey settings
- ***.nmx** = extension for native mix recordings
- ***.wav** = extension for the audio file created from the audio recorder
- ***.xml** = extension for the settings files. The way the details section is customized is stored in there as well as the chosen file paths.
- ***.log** = extension of the log-files that get created when opening TRAKTOR Scratch.

If you're using the default paths of TRAKTOR, you'll find all TRAKTOR files in the folder *My Documents\Traktor3 (PC) or HD/[User]/Traktor3 (Mac)*.

You can change the default paths in *Preferences > Browser Preferences > Data Location*.

9.2 Complete Backup

The easiest way to backup your whole TRAKTOR data is to use the default paths for the TRAKTOR folder and save the whole folder somewhere else as backup.

If you re-install your operating system and then TRAKTOR, just copy the whole TRAKTOR folder to the default folder *before* starting TRAKTOR the first time.

If you choose to point TRAKTORs file paths to another location, e.g. because you want to store all your data on a second partition or an external harddisk for security reasons, it's the easiest to organize the TRAKTOR files in a folder called *Traktor3* and a file structure like in the default folder.

It's important to know that even if you changed all paths to another destination, the *.log and the *.xml files get saved always to the default *Traktor3* folder anyways, so you have to copy these manually from time to time as backup to the folder you store all other TRAKTOR files in and obviously before you re-install your operating system.

If you have re-installed your operating system and TRAKTOR, copy the *.log and *.xml files to the default TRAKTOR folder *before* you start TRAKTOR the first time.

If the drive letter of your customized location didnt change, you should find everything as it was before the re-install.

If the drive letter of your customized location did change, you will find all tracks with an exclamation mark (**!**), that indicates that the links are broken. Use the **Relocate** function to find these files again.

9.3 Automatic Backup (Security Backup)

Each time you change something in your **Collection** and close TRAKTOR Scratch, a backup of your **Collection** is created in the folder *Backups* contained in your TRAKTOR Scratch folder. If you delete or partly ruin your **Track Collection** by mistake proceed as follows:

- In TRAKTOR Scratch's **Tree Window**, open the **Explorer** and navigate to your Traktor3 folder, found in your User folder (Mac) or in My Documents (PC).
- Click on the *Backup* folder.
- Click on one of the most recent backups and verify the integrity of the **Collection**.
- If the backup seems to be corrupt, check an earlier backup.
- If you have found an integer backup, drag & drop the folder onto the **Collection** icon to import the backup into the current **Collection**.

Note: TRAKTOR Scratch only saves 10 backups, after which it replaces the oldest backup with the second oldest one. You should therefore make a manual backup of the current status of the **Collection** by copying such a backup file to a separate folder, not accessed by TRAKTOR Scratch.

A corrupted **Collection** might cause TRAKTOR Scratch to crash during start-up. If you suspect this might be the case do the following:

- Close TRAKTOR Scratch.
- Make a backup of the file collection.nml found in the folder *user/Traktor3* (Mac), *My Documents/Traktor3* (PC) before deleting it.
- Restart TRAKTOR Scratch with an empty **Collection**.
- Import the backup of the **Collection** as described above.

Note: Although TRAKTOR gives you the choice to store your **Track Collection** and **Playlists** in different directories, it is best to keep these files organized in the default manner, as this makes it much easier to track down problems.

Important*:* The file Traktor Scratch Settings.xml contains your layout settings and is saved always to your Traktor3 folder. Backup this file as well!

# 10. Controlling the Decks

10.1 General Deck Behavior

- In **Internal Mode**, click and hold the track **Waveform**. This is like putting your hand on a **Vinyl** record to pause playback.
- While holding the mouse button, move the mouse backward and forward. This moves the **Waveform** similar to scratching a **Vinyl** record.
- Release the mouse button. The track will begin playing from the point at which you release it.
- Right-/ Ctrl-Click on the **Waveform** to start and stop playback.

Play

Hit on the **Play** button to start and stop the playback of the track.

Cue/ Play
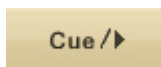
Clicking with the left mouse button on the **Cue/ Play** button lets the track jump back to the last **Cue Point** immediatly and continueing from there the playback.

Clicking and holding the **Cue/ Play** button with the right mouse button lets the track jump back to the previous **Cue Point** and stop there until you release the right mouse button again.

Cue/ Pause

Cue /II

Clicking on **Cue/ Pause** while the track is running lets the track jump back to the previous **Cue Point** and stop there.

If you click a second time on the **Cue/ Pause** button and hold it, the **Play** button lits as well and the track begins to play again from the **Cue Point** – until you release the mouse button again, then it snaps back again to the previous **Cue Point**.

If you are clicking and holding the left mouse button and then additionally pressing the right mouse button, the track will continue to play if you release both mouse buttons.

If you press the right mouse button while the track is running, it jumps back to the previous **Cue Point** and continues with the playback when you release the mouse button.

Deck Loop

↻x8

If you click on **Deck Loop** button an instant **Loop** gets created with the amount beats that are displayed.

Right-/ Ctrl-Click on the **Deck Loop** button to define the **Loop Length**.

Set Cue

Set Cue

Clicking on this button creates a Floating Cue Point as a visual reference or to make use of the Cue/ Play and Cue Pause buttons.

Opposite to **Cue Points** set with the **Cue Edit Panel** the **Floating Cue Point** will not be stored. The next time you hit **Set Cue** or you stop the track, a new **Floating Cue Point** is generated.

Read more about **Cue Points** in chapter 10.2 (Regular Cue Points).

Waveform Zoom
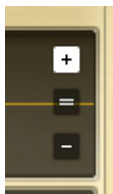
Each **Deck** offers the ability to zoom in or out on a track **Waveform**. Zooming in on a **Waveform** can be helpful in finding a more accurate **Cue Point**. Zooming out will give you a broader view of the **Waveform**.

- Click the **Plus** (+) sign button in the upper corner of the main **Deck Waveform** display. This Zooms *in* on the track **Waveform**.
- Now click the **Equal** (=) sign. This zooms to TRAKTORs default view of the track **Waveform**.
- Now click the **Minus** (-) sign. This zooms *out*, giving a broader view of the track **Waveform**.

Note: **Waveform Zoom** can also be performed with the scroll wheel of your mouse. Hold the mouse over the Waveform and scroll **up** or **down** to zoom **in** or **out**.

Waveform Cache

You will notice a growing, yellow bar beneath and below the overall waveform (Stripe) that indicates how much of a track is cached. Read more about the **Cache** adjustment in chapter 15.2 (Deck Preferences).

Manually Adjusting the Track Tempo (Pitch)
Pitch Fader

By moving the **Pitch Fader** up or down, you can speed up or slow down the **Tempo** of the track. The **Pitch Fader** has just the same functionality as a pitch fader on any standard DJ record player or pitchable CD player.

- Load and play a track in **Deck A**.
- To slow down the tempo, click + hold and drag upward on the **Pitch Fader**.
- Double-Click the **Pitch Fader** to reset it to 0%.
- Use the +/- buttons to change the tempo in steps.
- Use the scroll wheel of your mouse to move the **Pitch Fader** up or down in steps as well.
- Assign different sensitivities to the **Pitch Fader** by right-/ ctrl-clicking on the **+** button.

Advanced Pitch Fader functionality

- Right-/ Ctrl-Click + hold and drag the **Pitch Fader** up (or down).
- While holding the right mouse button, click and hold the left mouse button. This will temporarily slow down the tempo (or quicken it).
- This is a special method for pitch bending.

Pitch Range

The **Pitch Range** defines how far you can pitch the tempo up and/ or down. TRAKTOR Scratch allows you to adjust the **Pitch Range** by plus or minus **8%**, **35%**, **50%** or **100%**. Choosing a **Pitch Range** of +/- 100% will give you the largest possible **Pitch Range**, allowing you to slow a track all the way down to a complete stop. Choosing +/-35% will only allow you to slow a track down, or speed it up by 35%.

- Click on the *Preferences > Deck Preferences > Transport*.
- Click on one of the **Pitch Range** buttons and choose **OK**.

Using the Phase Meter

Two (or more) tracks can have the same tempo, but still sound silly together, because the **Phase** is shifted. The Phase is represented in the horizontal meter beneath the **Pitch Bend** buttons.

- If two tracks' phases are synchronized, the meter stays in the middle.
- If one tracks' phase is shifted aback, a yellow stripe is seen on the left side of the middle position.

- If a tracks' phase is shifted forward, a yellow stripe is seen on the right side of the middle position.

Note: You should use Beatgrids to get reliable results!

There are several ways to manipulate the phase:
- Double-Click on the **Phase Meter** to synchronize the phase.
- Shift the **Phase** by clicking on it, holding and dragging it with the mouse.
- Shift the **Phase** by using the scrollwheel of your mouse.
- Shift the **Phase** by clicking on the white little arrows that appear when you hover over the edges of the **Phase Meter**.

Hint: If you don't like the **Phase Meter**, you can turn it off (and back on) in *Preferences > Appearance > Wave Display Options*.

Matching the Key of your Tracks

With TRAKTOR Scratch it's possible to change the tempo of a track while keeping its original pitch. When you play a vocal track at a higher tempo, the voice will often sound unnatural. To avoid this, you can lock the **Key** of this track so that tempo changes do not affect it (also called **Master Tempo**).
- Click the **Key Lock** button beneath the Pitch Fader.
- Drag the **Pitch Fader** slowly upwards. You will hear the track in **Deck B** lower its tempo. However, its **Key** will remain the same.

Time Stretching Quality

The TRAKTOR Scratch **Key Lock** function uses **Time Stretching** as its method of effect. There are three types of **Time Stretching**, each with its own sound quality and requirement for processor power.

Open the TRAKTOR Preferences > Deck Preferences > Sound and Mixer.

- Next to **Time Stretching**, select **Non-Adaptive**. This will sound less natural but will use much less CPU. It is the best mode for computers with slower processors.
- Selecting **PSOLA** will sound more natural, using more CPU. This mode is recommended for medium fast processors.
- Selecting **Phase Vocoder** will give the highest quality sound. This mode is recommended for very fast processors, since it is using far more CPU.

10.2 Regular Cue Points

Floating Cue Point

Each time a **Deck** is stopped it sets a floating (momentary) **Cue Point**. When playback resumes, the **Cue Point** remains at the last point of interruption. The **Cue/ Pause** and the **Cue/ Play** button in the Cue Edit Panel can be used to skip back to the last floating **Cue Point** during playback.

During playback you can press **Set Cue** underneath the **Waveform** at any time to move the **Floating Cue Point** to the current position.

Storing Cue Points

TRAKTOR Scratch can store up to 10 **Cue Points** per track. You can store the current **Floating Cue Point** in the **Cue Edit** panel in the **Details** section:
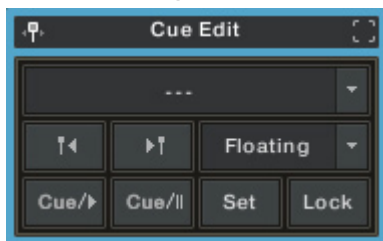
This panel offers all functions needed to manage the **Cue Points** of a track:

- A drop-down box with a list of all **Cue Points** stored for this track.
- Two buttons to cue to the previous and to the next **Cue Point**.
- A drop-down box to assign a special property to a **Cue Point**.
- A **Cue/ Play** and a **Cue/ Pause** button for test-playing your **Cue Points**.
- A **Lock** button to store and to remove the current **Cue Point**.

Locking a Cue Point

- If you want to recall a **Cue Point** for later use, you have to use the **Lock** button to store it.

- To remove a **Cue Point** from the list of permanent **Cue Points**, select it and release the lit **Lock** button.

Note: Whenever you select **a Cue Point** from the **Cue Edit Panel**, it gets locked by default (except the **Floating Cue Point**, obviously).

Naming Your Cue Points

After you have locked a **Cue Point**, you can name it. This way it is easy to find it in the **Cue List** panel.

- Skip to the **Cue Point** by selecting it from the list in the upper drop-down box.

- Double-Click on the display to place the text cursor in the name field.

- Type the new name and confirm with *Enter*.

Jumping between Cue Points

In TRAKTOR 3 you have several options for jumping to **Cue Points**:

- Clicking on the **Cue Point** symbol in the **Stripe Window** or in the **Wave Window**.

- Using the **Backward Cue** and **Forward Cue** buttons in the **Cue Edit** panel (or the respective **Hotkey**).

- Selecting an entry of the upper drop-down menu of the **Cue Edit** panel.

- Clicking one of the 6 buttons in the **Cue List** details panel.

10.3 Special Cue Points

While regular **Cue Points** help establish points in a track from which to play or cue, there are three other types of **Cue Points** you can set, each with their own special function.

Assigning a different type to a **Cue Point** is done by selecting the desired type in the drop-down box in the **Cue Edit** details panel.

- Select a **Cue Point** by skipping to it.
- In the **Cue Edit** details panel, click on the **Cue Type** display above the **Lock** button.
- Select a new **Type** for the current **Cue Point**.

Load Cue Point

A **Deck Load Cue Point** causes a track to automatically cue to this point when it is loaded into a **Deck**, saving you from the need to manually **Cue** your track to this **Cue Point**.

Grid Cue Point

A grid is defined by a **Beatmarker**. This is a special **Cue Point** from which a regularly spaced grid of reference lines is created, used to synchronize tracks. Read more about **Beatmarkers** and grids in the following section.

10.4 Defining and Using Beatgrids

General Information about the Beatgrid
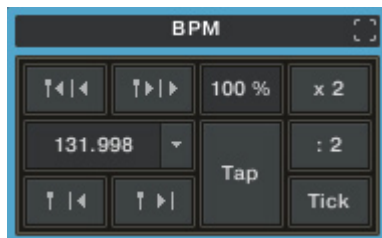
The tempo detection of TRAKTOR Scratch simplifies beatmatching, giving you more time to express your creativity. But although TRAKTOR Scratch's tempo detection is very precise, **Gridmarker** and **Beatgrids** are still an important tool to synchronize your music in TRAKTOR Scratch. The analysis of a track produces a **BPM** estimation that is not sufficiently precise enough to guarantee synchronous playback of two tracks over the duration of several minutes.

Tracks that have a correct **Beatgrid** don't go out of sync in the mix – ever. Tracks with a **Beatgrid** loop perfectly, will let you mix on obscure intros, and will enable you to get busy on the other features that TRAKTOR has to offer. Before we talk about setting them, it's useful to understand a bit about them.

When TRAKTOR analyses a track, it 'finds' beats in the **Waveform** (the little white lines on the beats). The problem is that these 'sensed' beats are not always an even distance apart (like in Hip-Hop or Breakbeats). This means

that when you try to synchronize two tracks, TRAKTOR tries to lay one 'sensed' beat on top of one in the other track, causing the **Phase Meter** to jump around as it tries to mash things together.

Setting a **Beatgrid** fixes this by placing a tempo structure on a track that supersedes the actual beats. This means that a regular pattern is used, stopping the **Phase Meters** from jumping around and ruining the mix. The grid represents quarter notes or beats.

The following sections give you a step-by-step explanation to this very powerful tool. Although it may sound somewhat complicated, if you're reading this chapter the first time, it's definitely worth the time and you will very soon get very fast at setting Beatgrids!

First: Choosing a BPM Range

You can find this general setting in the Preferences. Use this to limit the possible BPM range to a value that fits your musical style, e.g. if you're a Hiphop DJ, you will most likely choose a range between 70 and 120 BPM, if you're a Techno DJ, you'll choose limits more in between 110 and 160 bpm.

- Open *Preferences > Browser Preferences > BPM Ranges*.
- Ideally, choose a range without doubling a value, e.g. choose a minimum of 80 BPM and a maximum of 159 BPM.

Second: Analyzing your track tempo

If your tracks are not analyzed already, analyze now your track tempo. The analyzation gives back an estimated BPM value as well as several other values and builds the overall waveform (**Stripe**).

Find more about analyzation in chapter 15 (Preferences).

- Select one (ore more) track(s) and click on the **Analyze** button or choose Analyze via right-/ ctrl-click ing and chosing **Analyze**.

Third: Setting the Gridmarker (Grid Cue Point)

- Load a track into **Deck A**.
- Click on the small **Plus (+)** button in the waveform to switch to the largest possible zoom.
- Let the track play in **Internal Mode** and wait for the first **Beat** in the **Waveform**.
- Place a **Floating Cue Point** exactly right before the beat by dragging the **Waveform** (Vinyl Mode) exactly there

- Audition the position of the **Floating Cue Point** by pushing and holding the **Cue/ Pause** button in the **Cue Edit** panel.
- If you are satisfied with the location of the **Cue Point**, transform it into a **Gridmarker**. Use the dropdown menu **Type** in the **Cue Edit** panel and choose **Grid**.

Forth: Adjusting the Grid

In TRAKTOR Scratch, adjusting the tempo of the track to the reference clock is done by moving forward in the track and comparing the drift of the **Grid** to the beats.

While advancing in the song, you can fine tune the track tempo just as you would do in a mix with two turntables, with the difference that your result will be ultra precise and can be stored in the track and therefore needs to be done only once per track.

There are two methods for setting up the Betgrid, use the method that suits you more!

Visible Adjusting of the Beatgrid:

- Skip to the **Gridmarker** and play the track.
- Observe the drift of the white, vertical lines relatively to the beats of the track.
- You should correct any kind of emerging offset with the buttons underneath the **BPM** display in the **BPM** details panel. This will adjust the offset by recalculating if, based on a different tempo value for the track.
- In other words: The white, vertical lines should be in time with the beat of your track, using the both buttons beneath the BPM field to align the **Grid** lines with the visualization of the beats in the waveform.
- When the **Grid** lines and the beats of the track run perfectly in time, you can fast forward through the track to preview the drift later on in the track.
- The further away you get from the **Gridmarker**, the more precise the tempo value has to be for the **Grid** lines to stay aligned with the beats in the waveform.
- When you have reached the end of the track and it still is aligned perfectly with the Grid lines, you can be sure that the **Beatgrid** is precise. Any mix using this track will run smooth for its entire duration.

Note: Be very careful during this procedure as you can easily skip one beat when aligning the **Grid**. Even if TRAKTORs tempo detection is very precise, use at least 3 points in a track to observe the drift.

Audible adjusting of the Beatgrid:

- Skip to the **Gridmarker** and play the track.
- Observe the drift of the **Tick** relatively to the beats of the track.
- You should correct any kind of emerging offset with the buttons underneath the **BPM** display in the **BPM** details panel. This will adjust the offset by recalculating if, based on a different tempo value for the track.
- In other words: The **Tick** should be in time with the beat of your track, using the both buttons beneath the BPM field to beatmatch the track with the **Tick**.
- When the **Ticks** of the grid and the beats of the track run perfectly in time, you can fast forward through the track to preview the drift later on in the track.
- The further away you get from the **Gridmarker**, the more precise the tempo value has to be for the track to stay in **Sync** with the Tick.
- When you have reached the end of the track and it still runs in perfect time with the **Tick**, you can be sure that the **Beatgrid** is precise. Any mix using this track will run smooth for its entire duration.

Note: Be very careful during this procedure as you can easily skip one beat when aligning the **Grid**. Even if TRAKTORs tempo detection is very precise, use at least 3 points to observe the drift.

Difficult tracks and easy solutions

Rough Tempo Estimation

If you have the feeling that you or the TRAKTOR Scratch analyzer have *messed it up* and the **BPM** does not correspond to a correct value, you have the following possibilities to solve the situation:

- Click on the arrow beneath the **BPM** value in the **BPM** details panel and select **Restore** to reload the **BPM** value stored in the **Collection** for this track.
- Select a **BPM-Range** by clicking on the downwards pointing arrow next to the BPM value and choosing one of the offered options to transform the automatically generated **BPM** value into the selected interval.

- Tap 4-7 times to the rhythm of the beat to transform the automatically detected **BPM** value into a value close to the tempo of your tapping.
- Tap over 8 times to enter the **BPM** manually based on the tempo of your tapping.

Beatless Intros and tracks with different tempi

Sometimes you might have tracks that come with an beatless intro that irritates and influences TRAKTORs BPM detection. For these you can generate a **Local BPM** value by just one click, giving you a very precise tempo at a certain point, e.g. when the bass drum of the track starts.

- In the overall waveform (**Stripe**), click on the part where you want to get the tempo from.
- In the **BPM** panel, click on the downwards pointing arrow and choose **Local BPM**.
- You'll get a very precise tempo value back for this part of the track.

Setting a Beatgrid for Tracks recorded from Vinyl

Since a turntable's tempo always fluctuates a little bit, a vinyl-ripped track may drift over the time, making it impossible to set a perfectly aligned beatgrid over the whole track.

While the drift on a professional direct-driven turntable may only be small and negligible, the drift on a belt-driven turntable may be unacceptable.

However, in this case it is recommended to establish several **Grid Cue Points** during the track.

- Set a new **Grid Point** on a beat that has not aligned to the **Tick** or the white, vertical **Grid** lines
- See how the phase of the tempo is being restarted.
- This helps only to create a **Beatgrid** for tracks that have a drifting, but not an unsteady tempo.

Note: You can only assign *one* BPM value to a track in TRAKTOR. Setting several **Grid Points** do *not* help, if your track has 2 different tempi, e.g. a value of 110 BPM in the beginning and 120 in the end.

Fine Tuning the Position of the Gridmarker

Usually a visual setting of the **Gridmarker** is precise enough, however, you have the opportunity to set the origin of the **Beatgrid** even more precisely, which comes in especially handy if you have a track whose visual waveform doesn't show the beats very clearly.

- Cue to the **Gridmarker**.
- Set a **Loop** with the Deck **Loop** button.
- Turn on the **Tick** button in the **BPM** details panel to make the grid lines audible as ticks added to the track.
- To hear the **Tick** you have to turn on the **Headphone Cue** button in the mixer channel.
- Fine tune the position of the **Tick** relatively to the beats of the track with the two buttons above the **BPM** value in the **BPM Details**.
- If the **Ticks** are perfectly matching the beats, you have a set a very precise origin for the **Beatgrid**.

10.5 Details Pages and Panels

TRAKTOR Scratch offers you 4 different **Details Pages** that offer you several **Panels** offering various functions. Read here in this chapter a short description about every **Panel**.

Some Panels can be assigned to a specific **Deck** or to the **Focus Deck**. For this, click on the small square in the upper right corner of a **Panel** and assign it to your preference.

The **Scratch** and **Page Panels** are inserted on every **Page**.

Page:

Here you find the four buttons to the four **Details** pages.

Scratch:

This panel offers you the graphical representation of the **Control Signal** and the calibration status. Read more about calibration and the **Control Signal** in chapter 4 (Understanding the Scratch Panel).

Send 1/2:

This panel allows you to adjust the different **Send Effects**. Read more about the effects in chapter 12 (Effects).

BeatJump:

Lets you jump forward and backward through the track.

Right-/ Ctrl-Click on the **Forward Jump** buttons to adjust the **Jump Length**.

Right-Ctrl-Clicking on the **Backward Jump** buttons lets you jump forward through the track.

Find a detailed explanation of the **Beatjump** feature in chapter 11.1 (Beatjump).

Cue List:

The **Cue List** panel offers you six **HotJump** buttons that let you go immediatly to the first six stored **Cue Points**.

Key:

The **Key** panel lets you handle the key of a track different from its tempo.

Click on the **Lock** button to activate it. Now you can adjust the tempo with the internal pitch fader or the pitch fader on your turntable (or CD player) without changing its key.

Turning the knob clockwise increases the key, turning the knob counter-clockwise decreases the key.

Cue Edit:

This panel handles everything related to **Cue Point** actions. Set **Cue Points**, change them to special **Cue Points** like **Beat Marker** (Grid), step through stored **Cue Points** with the **Previous** and **Next Cue Point** buttons or rename them.

BPM:

The **BPM** panel allows you tempo related actions. The **BPM** panel is described in detail in chapter 10.4 (Defining and Using Beatgrids).

Audio Recorder:

The **Audio Recorder** panel gives you controls for performing and editing your audio recordings. Read more about recording in chapter 13 (Recording).

Master

The **Master** detail panel controls the overall **Volume** and **Balance** (Left/ Right) of TRAKTOR Scratch. It also features a **3-Band Limiter** for preventing clipping of the digital signal in the D/A converters of the sound card.

- Find the **Master** panel on **Details Page 4**.
- Click + hold and drag the **Volume** knob to adjust overall **Main** output volume. The level will be displayed in the meter next to it. If the level

reaches the top of the meter - which can happen easily if two or more tracks are playing together - it will result in unpleasant signal clipping.

- In this case you can use the **Master Limiter** function by clicking the **Lim** button. This limits the main output signal of TRAKTOR Scratch, preventing clipping or distortion.
- Use the **Gain** button for enabling **Autogain** as described earlier.
- To adjust the **Left/ Right Balance** of your main output signal, click + hold and drag the **Bal** (Balance) knob clockwise or counter-clockwise.

Note: When using the **Limiter**, the red LEDs in the level meters indicate when the **Limiter** is actively reducing the signal. The signal will not audibly clip, but a **Limiter** in action can have negative effects on parts of the sound, as it reduces the part of the spectrum that exceeds the limits. Often it's the bass frequencies that need to be limited to avoid clipping of the soundcard and a limited signal of this kind will therefore sound flatter. To preserve the original full sound, it is therefore important that even when using the **Limiter** you avoid permanent **Limiter** action. If you keep the output signal below the clipping level while adding volume on the analog mixer or on the PA gain, this will result in a much better sound.

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11. Advanced Playback Functions

The following chapters will give you the ammunition to expand your creativity.

Load your tracks, experiment with the following features and fire up your tracks with some hot new moves!

11.1 Beatjump

The **Beatjump** feature allows you to jump through the track in sections of beats. You can specify how many beats forward or backward you want to jump. This can be useful for scrolling through a track, but also has an added effect of *remixing* when performed while the track is playing.
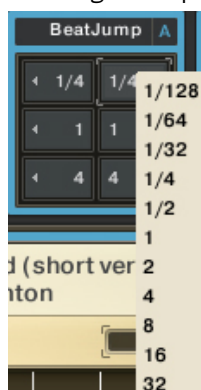
- Load and play a track in **Deck A**.
- You'll find the **BeatJump** panel on **Details Page 2**.
- Listen to the beat of the track and click the **1/2 >** button on-beat. This will move the song forward 1/2 beat.
- Now click the **< 4** button. This will move the song backward 4 whole beats.
- Using the **Beatjump** buttons **on-beat** can give the effect of *Beat Juggling*, allowing you to remix the beat on-the-fly.

Customize the Jump Length

By default, the four **Beatjump** buttons are set for **1**, **4**, and **16** beats. TRAKTOR Scratch lets you customize the length of any of the three **Beatjump** button pairs.

- Right-/ Ctrl-Click the button labeled **1>**.
- A menu will appear with length selections. Select **1/4**.
- The **Beatjump** buttons will now be labeled **1/4**. Allowing your track to jump 1/4th of a beat.

Two Button Mouse control
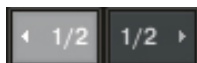
The **Beatjump** button offers a special functionality for dual button mice and for dual button track pads. The left row of the **Beatjump** buttons can be right-/ ctrl-clicked to achieve a jump in the opposite direction. With this feature you can *beat juggle* with your two finger tips.

11.2 Duplicate Deck

This feature allows you live remixing like you never could before with TRAKTOR - you can create an instant, exact and synchronized copy of a track, that even copies the **Loops** that were in the original tracks!

It's as easy as loading a track:

- Load a track in **Deck A** and let the track run either by hitting **Play** in the **Internal Mode** or letting the **Control Vinyl/ CD** play on your Turntable/ CD Player.
- Click and hold on the **Header** of the deck, that's where you see the **File Information** and the letter of the deck - here the big **A**.
- Now hold and drag the mouse onto **Deck B**.
- Both tracks are now running in exactly in the same position and synchronized.

Note: If you don't want to use the mouse, you can assign the respective Hotkeys in Add -> *Deck > Load Tracks > Deck duplicate Deck A or B* in the **Preferences**. Read more about **Hotkeys** *in chapter 14 (MIDI and Hotkeys).*

11.3 Loops

Setting a Loop

TRAKTOR has the ability to set points in a track that will loop sections of the track seamlessly. Once the **Loop** is set, its start and end points can be adjusted, and the entire **Loop** can be moved, even while the track is playing.

Looping From the Deck
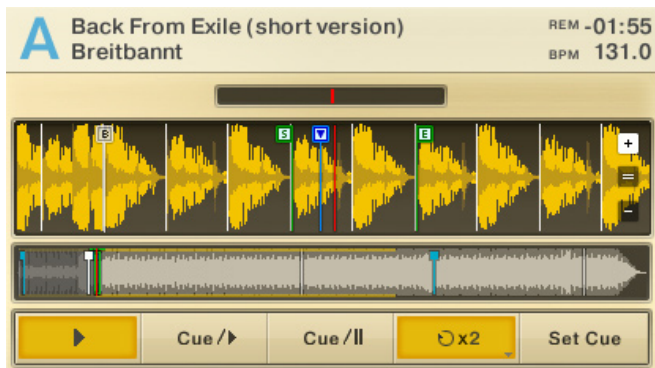
- Load and play a track in **Deck A**.
- Click the **Loop** button next to the **Play** button. Your track will begin looping.
- By default, the **Loop** button should be set to 4. This means your track will loop 4 beats.
- To change the loop length, right-/ ctrl-click the **Loop** button underneath the deck and choose a different loop length number from the drop-down menu.
- The **Loop** will automatically change length and continue looping.
- Click the **Loop** button again to continue playing the track.

Loop Preferences

Preferences for looping can be found by clicking TRAKTOR *Preferences > Deck Preferences > Transport***.**

Seamless Looping: Makes a short crossfade between **Loop End** to **Loop Start** for avoiding clicks. When setting a loop in a quiet part directly before a beat, in seamless mode a small portion of the beat might blend into the loop.

Loop Autodetect Size

TRAKTOR Scratch **will automatically loop the loaded track, if its length is** below a certain value. The length of this detection has a range of 0-60 seconds, adjustable with the horizontal slider. If you have set the track **Loop Autodetect Size** to 30 seconds, any track shorter than 30 seconds in length will automatically loop.

12. Effects

12.1 Effects Routing

TRAKTOR Scratch offers two kinds of effects: **Insert Effects** and **Send Effects**.
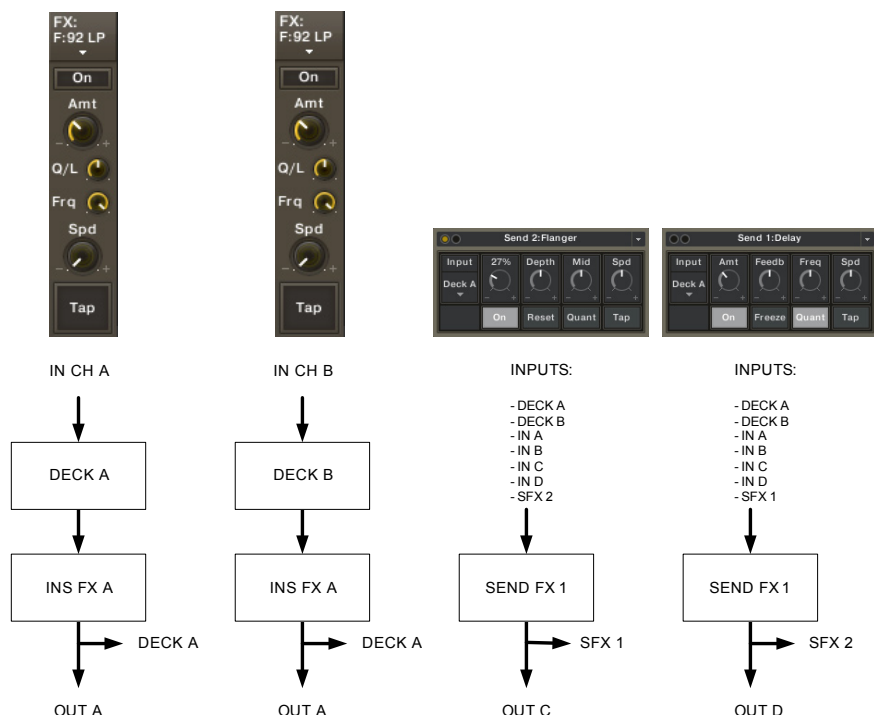
The **Insert Effects** are found beneath the decks. The control panel is a vertical strip. The type of effect can be selected with a dropdown menu in the header of the effect. The **Insert Effect** receives audio directly from the deck next to it. The amount of the effects is controlled with the knob labeled **Amt** and a button for switching the effect input on or off.

An **Insert Effect** *inserts* into the sound of a deck in opposition to the **Send Effect**, that *adds* to the sound of a deck, because is uses an additional output of the soundcard. **Send Effects** can be used in a much more variable way, as they have a configurable input. Any decks output, any input of the soundcard and even the output of the other **Send Effect** can be selected as input sources.

This way it is possible to route a microphone connected to the AUDIO 8 DJ's microphone input through the TRAKTOR Scratch effects.

12.2 Available Insert Effects

The **Insert Effects** in TRAKTOR Scratch features 3 types of filters:

- **F:92 LP** - Lowpass Filter, progressively cutting off high frequencies
- **F:92 BP** - Bandpass Filter, passing just a band of the frequencies
- **F:92 LP** - Highpass Filter, progressively cutting off low frequencies

The filters are named and modeled after the filters found in **Allen&Heaths Xone:92** club mixer. It has a **Low Frequency Oscillator (LFO)** controlling the cutoff which allows you to set a speed at which the **LFO** will modulate the filter rhythmically.

> **Note**: The filters are visible beside each deck in the **Performance View**. If you don't see the filters, choose **Performance** from the **Layout Selector** in the **Header** of the application.

To select a type of filter, click on the header of the filter containing the name of the filter. This will open a pull down menu with the available filter types.

How to use the Filters:

- Load and play a track in **Deck A**.
- Select **F:92 LP** from the drop-down menu in the header of the filter.
- Click the button **On**.
- Turn up the amount knob (labelled **Amt**) to full clockwise position.
- Set the **Resonance/LFO** knob (labeled **Q/L**) to center position.
- Turn the **Frequency** button (labeled **Frq**) clockwise and anti-clockwise and observe how the sound of the music is filterered the more you turn the knob to the right.
- Select **F:92 HP** from the dropdown menu in the header of the filter and compare the difference.

How to use the LFO (Low Frequency Oscillator)

- Select on of the filters as described before.
- Turn up the **Resonance/LFO** knob (labeled **Q/L**) fully clockwise.
- Turn the **Frequency** button (labeled **Frq**) clockwise and anti-clockwise and observe how the sound of the music is rythmically filterered.
- Change the speed by by tweaking the **Speed** knob (labeled **Sync**)
- Define a new reference speed by tapping the **Tap** button.

Detailed knob description

Header
Use to select the type of the filter.

On
On/Off switch for the filter. Use to punch in a filter that you have previously adjusted.

Amt
Controls the amount of the filtered signal in relation to the original signal.

- Fully counter-clockwise position represents 100% original signal.
- Fully clockwise position represents 100% filtered signal.

Q/L

Controls Resonance (**Q**) giving more color to the to the movement and the amount of the low frequency oscillator (**LFO**).

- Fully counter-clockwise position represents mimal filter color.
- Center position represents maximum filter color but zero LFO amount.
- Fully clockwise position represents maximum filter color with maxiumum LFO amount.

Frq

Controls the cutoff frequency of filter.

Spd

Controls the amount of LFO that is modulating the filter cutoff. The shape of the LFO is a sine wave, and it is generating positive and negative values. This means that the filter cutoff will modulate above and below the cutoff frequency.

Tap

Adjusts the tempo at which the LFO is running.

The tapped tempo refers to the center position of the Speed knob.

12.3 Available Send Effects

In the **Send Effects Panel** in the **Details Section** on **Page 1** you can select among 6 different effects, described hereafter.

Features Common to all Send Effects

Selecting the **Type** of effect is done via the dropdown menu in the header of the effect.

Send Effects have a freely assignable input. Select the input via the dropdown menu at the left of the panel. You can assign the input to the following sources:

- **Deck A**, **Deck B** – use for processing the sound played back in **Deck A** or **Deck B**.
- **In A** – **In D** – use for processing the sound connected to one of the inputs of your soundcard. This option is most commonly used for sending sound from a microphone through an effect (**In C**) or for processing sound from a **FX SEND** output from your mixer.
- **Send 1**, **Send 2** – this allows you to chain the two **Send Effects** by selecting the first effect as the source of the second effect.

The **Amount** knob controls the volume of the effect. This knob is needed if the return channel in the mixer - used to feed the effect back into the mix - has no fader or volume knob. If the mixer has analog volume control for the signal returning from the effect, you can leave the **Amount** knob fully turned up.

The **On** button is used to open and close the effects input. Certain effects, such as the **Reverb** and the **Delay** continue to produce even when their input is turned off. Very interesting effects can be created when leaving the output of such effects open, while turning on and off their input.

The **Speed** knob controls the speed of the time-dependent parameters of an effect. The speed parameter behave differently depending on the type of input and of the staus of the **Quantize** button.

The **Input** dropdown menu offers 7 input options, each one indicating the sound source for the effect and the tempo reference of the effect:

- Sound: Deck A, Tempo: Deck A
- Sound: Deck B, Tempo: Deck B
- Sound: Ext 3|4, Tempo: Deck A
- Sound: Ext 3|4, Tempo: Deck B
- Sound: Ext 7|8, Tempo: Deck A
- Sound: Ext 7|8, Tempo: Deck B
- Sound: Send 1, Tempo: Send 1

In center position of the **Speed** knob, the effect matches the BPM of the selected tempo source 1:1. This is the **Base Tempo** of the effect. Towards the left the effect speed slows down until reaching 1/8th of the track speed. Towards the right, the speed increases until reaching 8 times track speed.

With **Quantize** enabled, the speed changes in discreet steps of 1/8, ¼, 1/3, ¾, 1/1, 3/2, 2/1, 4/1, 8/1.

With **Quantize** not enabled, speed moves through the same range but without quantized steps.

By tapping on the **Tap** button you can multiply or divide the base tempo of the speed knob. Tapping fast will give a fast base tempo to the speed knob, tapping slow will give a slow base tempo to the speed knob. The tempo is always tied to the deck which is selected as input. When speeding up or slowing down the track, the effect speed will follow.

Note: It is essential that your tracks have correct BPM information to guarantee that the effects match the tempo of the track.

Controls Specific to the Delay

A **Delay** effect adds one or more timed repetitions of the original signal back into the mix. It is very useful to create new rhythmic patterns and works especially well with short percussive sounds.

Feedback controls how much the signal is returned into the delay. Turn counter-clockwise for short delays. Turn clockwise for long delays.

Frequency controls the filter in the feedback loop. With this knob you can control the color of the delay.

- Turned counter-clockwise the high frequencies are damped
- Center position for no damping
- Turned clockwise the lower frequencies are damped

Freeze loops the delay signal for the note length selected with the **Time** knob while muting the original signal.

Controls Specific to the Reverb

Reverb is an effect that can add depth and dimension to your mixes. TRAKTOR Scratch allows you to use the **Reverb** either static or dynamic, so it's possible to treat only certain elements of a track with **Reverb**.

High and **Low** control the color of the reverbrating room.

Size defines the size of the reverb room.

If you drag the knob all the way to the left, the reverb time is the shortest and if you set the value to 100% the reverb time is at maximum.

Freeze freezes the reverb by muting the input and maximizing the size of the reverberating room.

Controls Specific to the Flanger

A **Flanger** is a modulation effect that is great for creating tension. It got popular in the 1970's and was used extensively by guitarists and keyboard players. Essentially a **Flanger** is doubling the original signal and mixing it back in with a little delay, creating the ever popular wooosh-sound!

Depth sets the amount of frequency modulation.

Mid defines the frequency that is being modulated with the amount set by **Depth**.

Reset re-triggers the LFO of the flanger.

Controls Specific to the BeatMasher

The **BeatMasher** is a unique effect that isn't based on any classic effect type. It essentially samples a bar of music into a buffer which can then be transformed, and *mashed*!

The only way to understand this effect is to hear it in action, so let's have a try:

Select **BeatMasher** from the drop-down menu found inside the **Channel Effect** panel.

- Click the button **Quant** and the speed is synchronized to the deck.
- Click and hold the **On** button. The **BeatMasher** effect is audible.
- Drag the knob **Length** counter clockwise and repeat step 3.
- Compare how the effect sounds at different lengths to understand how the **BeatMasher** works.

More than any other effect presented earlier, the buttons and knobs of this effect have to be explained thoroughly and in detail:

On starts the sampling until the buffer is full. Then, it repeats the recorded audio and warps it accordingly to the settings of the effect.

Length defines the length of the **Loop** recorded in the buffer. The amount is always based on beats, and from left to right the values are: $1/32^{th}$ (minimum value), $1/16^{th}$, $2/16^{th}$, $3/16^{th}$, $1/8^{th}$ (centre position), $3/8^{th}$, $2/4^{th}$, $3/4^{th}$ and one bar (maximum value).

Rotate changes the position of the **Loop** within the sampled bar. This function is most effective at short to minimum setting.

Reverse plays the **Loop** backwards. If this is combined with a **Gate** value set between 8 am and 10 am the effect is very obvious because the original signal is being punctured by short bursts of the reversed **Loop**.

Gate works in two different modes. If you move it from the centre towards the maximum value, it works as threshold, progressively muting sections of the **Loop** until only one 16th of the **Loop** is audible at 100%. If **Gate** is in the centre position, it plays the **Loop** exactly as defined by the **Length** knob. When moved from the centre towards minimum value, the original signal is being mixed into the loop, resulting in a 100% unaffected or *dry* signal at the minimum position and a 100% processed or *wet* signal at the center position.

Note: You will have to control the **BeatMasher** effect with hotkeys or with the help of a MIDI controller, as this effect develops its character only when several parameters are being tweaked at the same time.

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13. Recording

13.1 Understanding Audio Recording

By using the **Audio Recording** feature it is possible to record your TRAKTOR Scratch set in real time. You can also record external sources connected to the sound card such as vinyl records or a microphone in case you are performing together with a vocalist. It's even possible to use an recorded audio file and play it back in a deck just as you do with the tracks from your collection!

Configuration

Assign one of the four available channels as **Recording** source.

- Connect the device you want record from as described in chapter 5.3 (Advanced Setups).
- Open TRAKTOR Scratch *Preferences > Recording*.
- Select the channel (**A**, **B**, **C**, or **D**) that you have connected to the recording signal.
- Open Page 4 and find the **Audio Recorder** panel in the **Details Section**.

Example: If you want to record the sum coming out of your hardware mixer, connect the record output of the mixer with input **IN 5/6** of the AUDIO 8 DJ. Make sure you have selected **Line** on the **MIC/LINE Selector** and **IN 5/6** on the **SOURCE** switch.

Adjusting the Input Level

Once you have selected your input channel, you should test your input signal level. This requires the use of the **Audio Recorder** panel in the **Details Section**. You can find it on **Details Page 4**.

- Play a track from any of your input sources or, if using a microphone, talk some words.
- Your input level will be displayed in the level meters of the **Audio Recorder** panel.
- Use the **Gain** knob for adjusting the recording level – the meter range should show peaks in the upper third.
- To avoid distortion or clipping, make sure the level doesn't reach the maximum amount at the top of the meter range.

Recording your Input Signal

- Open the **Audio Recorder** folder icon in the **Track Browser**.
- Click on the **Record** button in the **Audio Recorder** panel.
- TRAKTOR Scratch will begin recording your input signal. The file size of your recording and time elapsed will be displayed in the **Display Window** of the **Audio Recorder** module.
- The recording will appear as track in the **Audio Recorder** folder and will have a time-stamp in its name.
- Click on the **Record** button in the **Audio Recorder** panel to stop recording.
- You can instantly drag the recording into a deck and play it.

Using Cut & Continue

While recording, you can separate the recording into individual *.wav files. If you are recording your mix as audio, this allows you to separate your recording at points you determine on-the-fly.

During recording, click the **Cut** button in the **Audio Recorder** panel.

- The recording will cut at this point and begin a new *.wav file.
- The *.wav files will be displayed in the **Audio Recording List Window** view.

Split at file size

Another way to separate your recording is by utilizing the **Split at File Size** preference. This allows you to specify a file size (in megabytes) at which the recording will be separated. This function is extremely useful in cutting down your recordings into CD-size sections that can later be burned without any problem.

- Open TRAKTOR *Preferences > Recording*.
- Click the arrow to drop down the **Split at File Size** menu and choose a file size.
- Each time the **Audio Recording** reaches this file size, it will be split into a separate audio file.

Deleting the Last Recording

If you are not satisfied with your **Audio Recording**, you can delete it.

- Click on the **Audio Recordings** folder icon in the **Track Browser**.
- Select the recording you wish to delete.
- Click on the **Delete** button in the **Audio Recorder** panel. You can also click the **Delete** button next to the **List Window**.
- A menu will pop up asking you to confirm.
- Choose **OK**.
- The recording will disappear from the **List Window**.

Note: If you do not want the popup menu to appear each time you choose **Delete**, put a check mark in the box labelled **Do not show again**.

Editing Properties of the Recording

Track properties for the **Audio Recording** can be edited just like any track in your **Collection**, either inline in the **List Window**, by using the **Edit** button or through the **Edit** context menu option. Additionally there is a shortcut to the **Edit** dialog of the currently recording track in the **Audio Recorder** panel, called **Edit**.

14. MIDI and Hotkeys

14.1 Controlling TRAKTOR with MIDI and Hotkeys

Virtually every feature of the TRAKTOR Scratch interface is capable of being controlled by **MIDI** or by **Hotkeys** (keyboard shortcuts). The reaction of TRAKTOR Scratch can be customized in a large variety of modes.

These settings can become very complex and they can therefore be saved in a preset file and shared with other users. This file can be stored and loaded with the **Load** and **Save** buttons in the **Hotkey** or **MIDI** setup page.

TRAKTOR Scratch comes with a default set of assignments for **Hotkeys** documented in the welcoming PDF of the software.

You'll find them in your *TRAKTOR Scratch* folder; they have the suffix ***.tks**.

The following section describes how to customize this preset and how to create your own **MIDI** and **Hotkey** presets.

14.2 Keyboard Hotkeys

- Open TRAKTOR *Preferences > Hotkey & MIDI Setup > Hotkey Setup*.
- Click the **Add** button and select *Deck > View > Deck Select Focus*.
- Drop down the **Controller Attribute** menu and select **Deck A**.
- Click the **Learn** button.
- Press the desired key on your computer keyboard, e.g. **y**. The letter **y** will appear in the controller window next to the **Learn** button as well in the **MIDI** controller list under the **Assigned** column.
- Choose **OK**.
- Now you can select **Deck A** as focus deck when you press the key **c**.
- To un-assign this key, click the **Reset** button next to the **Learn** button.
- To entirely remove the option from the list press **Delete**.

Changing an Existing Hotkey Assignment

Most likely you don't like certain assignments of the default **Hotkeys**. In this case you can change the configuration as you like.

- Open TRAKTOR *Preferences > Hotkey & MIDI Setup > Hotkey Setup* and scroll through the list.
- You can sort the list by the assigned **Hotkeys** to find a specific control.
- Select the control and change the settings in the details underneath the list.
- To assign another key, press the **Learn** button and then press the new **Hotkey**.

14.3 Midi Hotkeys

Configuring your MIDI Setup for External Device Control

Before you can configure TRAKTOR Scratch to use it with your MIDI interface, you will need to install the drivers that came with it first. MIDI device driver installation is different for every device. You should read the manual for your MIDI device for the correct installation procedure.

Activate your device

After you have installed the drivers for your MIDI device, the interface will appear within the MIDI section of the **Preferences**. You must activate the device before you can assign any parameters.

- Open TRAKTOR *Preferences > Hotkey & MIDI Setup > MIDI Interfaces*.
- Your MIDI device should be displayed.
- Under the **Active** column, double-click the field next to the device name. This puts an **X** in the **Active** box, making the MIDI interface active.

Note: If your MIDI device does not appear in the list, you may need to restart TRAKTOR Scratch in order for it to be recognized. When doing so, make sure your MIDI device is attached to your computer and powered on.

Select a MIDI Channel

TRAKTOR Scratch gives you the option to choose one of 16 MIDI channels or to accept MIDI messages from all channels.

- Open TRAKTOR *Preferences > Hotkey & MIDI Setup > MIDI Setup*.
- By default the **Channel** will be set to **OMNI**. This means TRAKTOR Scratch will accept all incoming **MIDI** control messages from any **Channel**, therefore you do not need to worry about what channel your **MIDI** device is transmitting on.
- Choose **Lock OMNI** if you do not want to change the MIDI channel
- If you want TRAKTOR Scratch to accept messages from a specific MIDI channel, click the arrow next to **Channel** and select a MIDI channel from the drop down menu.

Assigning MIDI Knobs and Buttons to TRAKTOR Scratch

To assign functions to MIDI controllers, use the TRAKTOR *Preferences > Hotkey & MIDI Setup > MIDI Setup* page.

- Select a control just as you did in the **Hotkey** setup preferences.
- To assign a specific MIDI knob or button, press the **Learn** button and send **MIDI** data by moving the knob or button that you want to assign.
- If the MIDI-connection to your controller is correct, you will see the type of MIDI signal received by TRAKTOR Scratch in the window beneath the **Learn** button.
- If nothing happens verify your MIDI Setup (see section above).

14.4 Managing your MIDI and Hotkey Files

Duplicate

If you are adding similar controls, such as **Deck select Focus** an easier method is **Duplicate**. This will add a duplicate control, identical to the currently selected control.

- Click on a control in the control list window.
- Click the **Duplicate** button.
- Another identical control will appear in the window.
- Click **Controller Attributes** and select another channel type (e.g. Deck B).

Delete

If you don't want a control in your list, you can **Delete** it.

- Click on a control in the control list window.
- Click the **Delete** button.
- The control will be deleted from the list.

Reset

By clicking the **Reset** button at the top of the settings preferences window, TRAKTOR Scratch will immediately clear the control list.

Important: You can assign the same **(MIDI) Hotkey** to more than one function, which can be useful in special situations, but may be unwanted for other situations. However, if you assign the same **(MIDI) Hotkey** to more than one function, both lines are lit in red.

MIDI/ Hotkey Pages

The **Hotkey Setup** and **MIDI Setup** have more than one page. The drop-down menu above the table containing the list of assigned controllers shows the currently selected page (1-3).

Switching from or to another **MIDI/ Hotkey Page** changes all assigned keys and MIDI triggers - it's like loading a totally new assignment file with the difference that the switch is seamless and can be triggered with a Hotkey or a MIDI command itself.

The controllers for switching pages are found in *Add > Pages > MIDI/ Hotkeys*.

MIDI and **Hotkey Pages** have one major purpose: Allowing you to implement any key as modifier between two functionalities for a knob or button.

You could for example assign **Default** sensitivity for Key changes to a (MIDI) Hotkey and switch to **Fine** sensitivity when you additionally press the key **F** on our keyboard.

Select **Page#1** from the drop-down menu and assign **Hotkeys** to *Add > Deck Tempo > Deck Key*. Add a **Hotkey** for increasing and one for decreasing the value via the **Duplicate** button and choosing the respective **Control Type** (**Inc** and **Dec**)

- Select **Page#2** from the drop down menu and assign the same **Hotkeys** to *Deck Key*. Now, set the **Control Type** to **Fine** via the respective dropdown field.

- Now define a hotkey for switching between **MIDI Pages 1** and **2** and assign it to the letter **F**.

Controller Types

- **Direct** is used to control parameters within a definable range via faders or knobs.
- **Inc & Dec** are used to control parameters within a range via buttons or keys on your keyboard by stepwise incrementing and decrementing the value of the parameter.
- **Reset** is used to set a value at which a button or key resets to (e.g. the crossfader resets to the middle position).
- **Toggle** is used to control buttons with an *On/ Off* state, e.g. the **Play/ Pause** button.
- **Hold** is used to control buttons that shall be *On* only as long as you press the button, e.g. the **Cue/ Pause** button.
- **Trigger** is used for controls that shall initiate an action, e.g. the **Deck Load Selected** control.
- **Previous & Next** are used for controls with which you can scroll through a list, e.g. the **Browser List Window**.
- **Output** is used for MIDI Out, e.g. to get LED's blinking.
- **Set Default** is used similar to the **Reset** type.
- **Up & Down** is used e.g. for the **Pitch Bend** control.

Direct Mode for specific Hotkeys

This is a very innovative extension of the current hotkeys for range controls such as filter knobs or the **Key** knob. The idea behind it is to give DJs without additional controllers a way to control TRAKTOR Scratch effectively and comfortably – it enables you to turn a knob up and down without the need to hover over that specific control or to click with the mouse.

Use it as follows:

- In the **Hotkey Setup** assign an additional **Hotkey** to parameter.
- Select **Direct** as **Control Type**.
- Back in the application, you can now press this new **Hotkey** with one hand and with the other you can instantly change the paramter by moving the mouse or by using the touch pad.

This way you can very quickly control several parameters- particularly handy when it comes to controlling effects.

MIDI Control Types

- **Analog Fader/ Knob Control** has a mechanical range corresponding to the range of the parameter.
- **Rotary (7Fh;01h)** has no mechanical range (endless knob) and controls the parameter via small increments and decrements.
- **Rotary (3Fh;41h)** is a special type of **Rotary Encoder** sending values smaller or higher than the neutral position 40h.
- **Button** is something with an *On/ Off* state, i.e. something you can turn on.

For adapting to various mechanical layouts, the direction of motion for **Direct** controllers can be inverted with the **Invert** button.

The acceleration and sensitivity of **Rotary Encoders** can be configured just like a mouse. The mouse wheel and the ball below a mechanical mouse are basically the same as a **Rotary Encoder**.

Rotary Sensitivity

The **Rotary Sensitivity** slider determines how far the controller moves per one click of the **Rotary Encoder**. If you have an *endless* knob, this will give it a fixed value for high and low.

- Select a control in the MIDI controller list window.
- Click the arrow next to **Control Type** and select **Direct** from the drop-down menu.
- Click the arrow next to **Mode** and select either **Rotary** or **Rotary (signed)**.
- You now have control over the **Rotary Sensitivity** slider.

Rotary Acceleration

The **Rotary Acceleration** slider determines how the controller behaves when the knob is turned at higher speeds.

- Select a control in the MIDI controller list window.
- Click the arrow next to **Control Type** and select **Direct** from the drop-down menu.
- Click the arrow next to **Mode** and select either **Rotary** or **Rotary (signed)**.
- You now have control over the **Rotary Acceleration** slider.

Soft Takeover

By default, the virtual knobs and sliders of TRAKTOR Scratch will *pick up* at the position of the corresponding knob or slider of your MIDI controller. By selecting **Soft Takeover**, this works inversely: The knob or slider of your MIDI controller will pick up where the knob or slider of TRAKTOR Scratch left off.

Incremental and Decremental Controllers

Controllers working incrementally like repeated clicks of buttons have another set of options:

Auto Repeat

With **Auto Repeat** enabled, a triggered function, such as an **Increment** or **Decrement** can be automatically repeated when the key or button is held down.

Resolution

A **Step size** is the distance how far up or down a controller moves. The **Resolution** menu allows you to increase or decrease the **Step Size** of your incremental or decremental controls.

- Use the arrow next to **Resolution** to drop-down the menu.
- Select a **Step Size** from the menu.

These Step Sizes are the same available for the knobs on the software interface. Refer to chapter 7.2 (Knob and Fader Control) to learn more about knob and fader sensitivities.

Save your Controller Settings

Once you have completed a controllers' configuration, you can save it as a TRAKTOR configuration file. This file can then be copied to another computer and loaded into TRAKTOR Scratch.

Save

Save allows you to save your settings as one file on your hard drive.

- Click the **Save** button.
- A standard operating system dialogue box will appear.
- Type your desired name for the **Hotkey** file.

- Click the **Browse** button to search for a folder in which you would like to store the file.
- Choose **Save**. TRAKTOR will save your file with the extension ***.tks**.

Load

- If you would like to load your **Hotkey** file, click the **Load** button.
- Browse your hard drive for the **Hotkey** file.
- Select the file and choose **Open**.

Reset

By clicking the **Reset** button at the top, TRAKTOR Scratch will immediately clear the controller list.

15. Preferences

This section gives an overview of each option found in the TRAKTOR Scratch **Preferences Menu**. Each preference in this section appears in the order in which it is displayed in the main **Preferences Menu** window.

15.1 Audio Setup

Soundcard

- **Audio Device**: Please choose your audio device. With AUDIO 8 DJ connected, it will be set automatically to the AUDIO 8 DJ. If the AUDIO 8 DJ is not connected, all channels get routed automatically to your onboard (built-in) soundcard.
- **Sample Rate**: Choose a sample rate according to the soundcard. Note, that higher sample rates stress your computer more. The standard is 44.1 kHz.
- **Audio Latency**: Open your soundcard's control panel and choose a latency value. Lower values stress your computer more and a setting too low can lead to audio dropouts and other unwanted behavior. Read more about latency in chapter 17.1 (What is Latency?).

Control Signal

Noise Gate

This is the threshold a signal has to pass to get through to the decoder. The value is represented in the **Control Signal** graphic as a red circle. If you're encountering problems with a value of 0, you should adjust it so that all *noise* lies in the red circle.

Response

Response is the time taken for tempo changes to be tracked. Completely to the left means a fast detection, completely to the right means a slower detection, which may stress your computer less.

Turntable left/ right

The **Control Signal** figures give you a basic idea of the quality of the **Control Signal**. More detailed information can be found in the **Scratch** panel which is explained indepth in chapter 4 (Understanding the Scratch Panel).

Record Speed

Put a checkmark in the **45 RPM handling mode** if you prefer this over 33 RPM.

15.2 Deck Preferences

Loading

The **Loading** menu gives the following choices for loading tracks into a deck.

Security

- **No Loading Track while Deck is playing**: Secures you from accidentally loading a track into a deck that is playing in the main mix.
- **Stop Deck at End of Track**: Stops the playback of a deck when a track is at its end.

Reset Controls

- **Reset Deck Controls when Loading Track**: Resets all deck controls to their default value when a track is loaded.

Advanced

- **Auto Load next Track**: This enables TRAKTOR 3 to automatically load the next track from the **Current Playlist**.
- **Cue to Marker when Loading Track**: With this enabled, a track will automatically cue to an established **Load Marker** when it is loaded.

Scratch Mode

- **Load next Track on Record Flip**: With this option checked, you can load the next track of any **Playlist**.

Transport

Loops

- **Seamless Looping**: Softens the volume on the beginning and the end of a loop to make it sound more seamless, without pops or clicks in audio.
- **Loop Autodetect Size**: Use this slider to adjust the size beneath which a track is automatically detected as loop and therefore will be looped automatically. An automatically detected loop will show the green loop bars at the beginning and the end.

Pitch

- **Pitch Range**: Determines the range of tempo control in the **Decks**.

Scratch Mode

- **Switch to Absolute Mode in Lead-In**: When you place the needle in the **Lead-In** of the **Control Vinyl** or skip to the first track of the **Control CD**, **Control Mode** switches to **Absolute Mode**.
- **Switch to Absolute Mode after Loading**: When loading a track, the **Control Mode** always switches to **Absolute Mode**.

Cache

You will notice the blinking, yellow bars beneath and below the **Stripe**. Everything you see in this range will be *cached*, allowing seamless loops and jumping through the track. The yellow bars stop blinking when the whole track is cached.

Choose how many megabyte per track and deck shall be cached, but choose carefully:

- Choosing **256 MB** for **Deck A & B** means that with tracks loaded in both decks your computer needs 512 MB of your RAM only for handling the two decks.
- The display below shows how much RAM is left with your current adjustment.

Important: This setting is very dependant of your system's tech specs. The higher the **Cache** setting the higher the stress for your computer. When choosing a setting leave always enough headroom for the actual RAM of your computer, especially if you're having audio dropouts or other performance issues.

Sound & Mixer

Time Stretch Quality

This adjusts the quality of time stretching used when using the **Key Lock** function.

- Use **Non Adaptive** with a slower processor.
- Use **PSOLA** with a medium processor.
- Use **Phase Vocoder** with a fast processor.

15.3 Browser Preferences

Data Location

This menu contains the locations of various file types used in TRAKTOR Scratch. Click on a **Browse** button next to a file type to change the location of the folder. The files placed in these paths are explained more detailed in chapter 9.1 (TRAKTOR File Formats and TRAKTOR Folder).

- Click on the **Browse** button and navigate to the desired folder to change the file paths.
- To add a music folder, click on the **Add** button, then navigate to your music folder.
- You can choose multiple music folders.

Collection Preferences

- **Import Music Folders at Startup**: With this selected, each time TRAKTOR Scratch is started, it will automatically import all tracks in your **Music Folder** that have not already been imported.
- **Determine track-time automatically (before analysis)**: With this option checked TRAKTOR Scratch estimates the track-time before exactly analyzing it.
- **Perform Automatic Background Analysis on Collection Load/ Import**: Performs an automatic analysis of all tracks of the **Collection** not yet analyzed when imported.
- **Perform Automatic Background Analysis when Loading into Deck**: This option triggers the analysis only when loading a track into a deck. By analyzing the tracks on demand you don't run into the CPU problems you may encounter with a permanent background analysis.

Note: Analysis is a process generating high CPU load. Due to lower prioritization of the analysis process there is no risk of slow downs for TRAKTOR Scratch itself, but when using additional software contemporarily to TRAKTOR Scratch, you may note that this software performs slower than usual.

- **Show Consistency Check Report on Startup**: With this selected, the **Consistency Check Report** will be displayed each time you start TRAKTOR Scratch. This report displays information about your **Track Collection** and gives options to manage it.

- **ID3 Tag Mode**: This selects how the ID3 tag is written to a song file: **Standard** will write industry standard ID3 tag properties such as Artist, Song Title, Album name, etc. **Extended Tags** will write standard ID3 tags as well as TRAKTOR ID3 tags such as Record Label, BPM, Remixer, Producer, Key, etc. **Extended Tags & Stripe** will write standard and TRAKTOR ID3 tags and will store the **Stripe** (Overview Waveform) data in the track file.
- **Ignore Cued Tracks in History**: With this selected, tracks that have been cued (but *not* played) will not appear in the **History** (located under **Playlists** in the **Browser Tree**).

BPM Ranges

Analyze BPM Range: Dial in the minimum and maximum values of beats per minute (BPM) your tracks usually have to help TRAKTOR Scratch's BPM-Analyzation finding the appropriate value when analyzing.

It's advisable to keep the range small and to avoid the doubling of a value (e.g. 80 - 159 BPM is better than 80 – 161 BPM).

We believe that sound above 250 BPM (and beneath 40 BPM) cannot be called music, therefore higher (or lower) values are not accepted.

Live Settings

Allow Inline Editing in List Window: With this option unchecked, **Inline Editing** of a track's tag in the browser is not allowed to prevent from unwanted changes during a live set.

Check this option if you're preparing tracks at home for faster access to the tags.

15.4 Recording

Recording Source

Extern Recording Input: Select the input channel of TRAKTOR Scratch receiving the external audio.

Directory

This determines the file path in which your audio recordings are stored.

Prefix

This determines the prefix of the filename of each recording.

Split at File Size

With a file size selected, your audio recordings will be split each time the file size is reached. With no file size selected, the recording will be a continuous file.

> **Note**: Be aware that a file recorded as wav can become very large, so splitting the file might be a good option!

15.5 Hotkey and MIDI Setup

> **Note**: For detailed instructions in configuring these preferences, please use the instructions found in chapter14 (MIDI and Hotkeys).

Hotkey Setup

This menu is used to configure the various keys of your computer keyboard to assign it to the control features of TRAKTOR Scratch. **Add** a control, click **Learn** and press a key on your keyboard to assign it to the control feature.

See how the available **Controller Attributes** change depending on the desired control and how different settings change the behavior of the controls.

You can add controls and assign them to a specific deck or to the focus deck.

Load and save **Settings** and share them with other users.

MIDI Interfaces

This menu displays all detected MIDI interfaces that are connected to your computer. Double-click to put an **X** in the box next to the device to make it active.

MIDI Setup

Use this menu to assign the various controllers of your MIDI device to control features of TRAKTOR Scratch. **Add** a control, click **Learn** and move a knob/ fader/ button on your MIDI-Controller to assign it to the control feature.

See how the available **Controller Attributes** change depending on the desired control and how different settings change the behavior of the controls.

You can add controls and assign them to a specific deck or to the focus deck.

Load and save **Settings** and share them with other users.

15.6 Appearance

Wave Display Options

- **Highlight Beatmarkers**: With this selected, the **Beatgrid** will be brighter and more visible.
- **Show Minute Markers**: Shows a white line for each minute on the **Stripe Window**.
- **Channels**: This configures how the waveform looks. **Beats** will display the beats of the track only. **Beats and Highs** will display the beats of the track along with the detected highs in the track. **Beats and Envelope** will display the beats of the track along with the detected envelopes in the track.
- **Colors**: You can choose from 3 waveform colors.
- **Track End Warning Time**: This slider adjusts the amount of warning time TRAKTOR 3 gives when the end of a track is approaching. The warning is displayed as a flashing red transparency over the deck waveform.
- **Play-Marker Position**: Determine how far to the left or to the right the **Play-Marker** shall be displayed.
- **Phase Meter**: With the option **Show Phase Meter** unchecked, the **Phase Meter** will not be visible. If you check this option you will see the **Phase Meter** appear above the **Waveform**.

Miscellaneous

- **Switch to Fullscreen on Startup**: With this selected, TRAKTOR Scratch will open in full screen mode (filling your entire computer screen) each time it is started.
- **Fullscreen Mode**: Options for TRAKTOR Scratch to fill your entire screen at the resolution your computer is set to (Desktop) or at 1024x768 resolution.
- **Show value when over Control**: With this option checked, knobs like **Gain**, **Master Volume** or the **Effects'** knobs show their actual value when hovering over it.
- **Font Size**: Choose a font size from the drop down menu. Font sizes range from **small** to **huge**. Click **Apply**. The font size for the **Browser** will be changed accordingly.
- **Hide Beatport**: This option hides the Beatport icon from the **Browser Tree** and the **Find More** button in the Browser.
- **Reset Hidden Dialogs**: resets all dialogs that have been hidden by clicking on the "Don't Show This Again" checkbox.

16. Tips & Tricks

16.1 Playing in Reverse

Sometimes you might want to play a track in reverse as an additional effect. Although TRAKTOR Scratch itself does not have this feature graphically represented by a knob, you can assign a **Hotkey**:

- Open *Preferences > Hotkey & MIDI Setup > Hotkey Setup*.
- Add a new control for *Deck > Transport > Deck Reverse*.
- Start the playback of a track and see how the playback reverses.

Note: This method can only be used on a running deck, this does not work on a stopped deck!

Note: This method can only be used on a stopped deck, this does not work on a running deck!

16.2 Organizing Playlists

Per default, there is only one level under the **Playlist/ Mixes** folder besides the pre-installed **Demo**, **History**, **iTunes** and **Mixes** folders. If you use **Playlists** a lot you will soon find this a bit limiting.

So if you want to categorize your **Playlists** into a deeper hierarchy, do as follows:

- Close TRAKTOR.
- Open the Windows Explorer or, respectively, the Mac Finder
- Navigate to the folder *My Documents/Traktor3/Playlists* for Windows or *HD/[User]/Traktor3* for Mac.
- Add new directories depending on your operating system.
- Move Playlists into desired folders and organize them in the new directories to your liking.
- Open TRAKTOR again and see these new directories appear under the *Playlists/ Mixes* directory.

This tip was shared by forum user electric surge.

16.3 Using the Beatmasher in Musical Values

The **Beatmasher** is a unique effect that essentially samples the signal arriving at its input and stores it in a buffer. There it can be looped, transformed – and mashed up!

The **Length** knob only offers a value in terms of percentage. There is, however, a little trick that allows you to step through the timing in musical values.

This is how it's done:

- Right/ Ctrl-Click the small **Plus** symbol underneath the **Length** button.
- Select **Coarse** from the drop-down menu.
- Change the value in increments that relate more directly to the tempo of the deck, either by positioning the mouse pointer over the **Length Button** and moving it up and down or via clicking the **+** and **–** symbols.
- If the **Length Button** is at the very minimum, the audio material played back from the buffer is exactly $1/32^{nd}$ note long.
- The next increments represent $1/16^{th}$, 2/16th, 3/16th, $1/8^{th}$ (at the center position), 3/8ths, 2/4, 3/4 and finally one whole bar at the maximum value to the very right.

This leads to more satisfying results when using the **Beatmasher**!

16.4 Stickering the Control Record

Stickering I: Absolute Mode

You can toggle between the **Scope** and the **Sticker View** by clicking anywhere on the **Scratch** panel.

The **Sticker View** provides a small **Dot** that moves as fast or slow forward or backward as you move the platter.

You can sticker your **Control Record** in a way that the **Dot** on the GUI corresponds to the sticker on your record – always:

- Put the needle on the record and let it run without a track loaded. Also, you must be in **Absolute Mode**.
- Shortly after the **Red Flag** ends, you see a white vertical line indicating the beginning of the **Control Signal**.
- The **Dot** on the GUI should be now on 12 o'clock.
- Now mark your **Control Record** with a **Dot** also placed at 12 o'clock.
- Load a track in the deck and let it run in **Absolute Mode**.
- Whenever you find the **Dot** in the GUI at 12 o'clock, it will be in the corresponding position on the record!
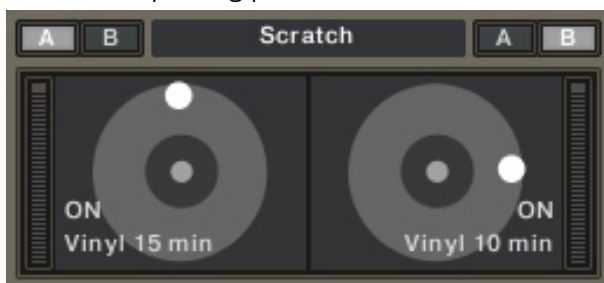
Deck A with the **Control Signal** exactly on 0, **Deck B** turned ¼ round.
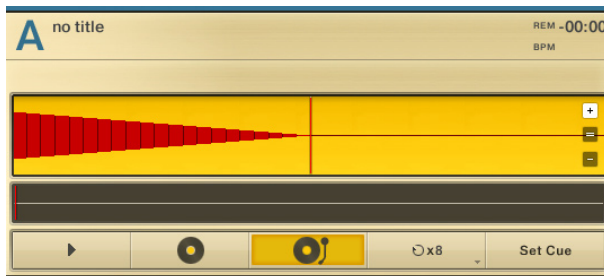
Deck A with the **Playmarker** exactly on 0.
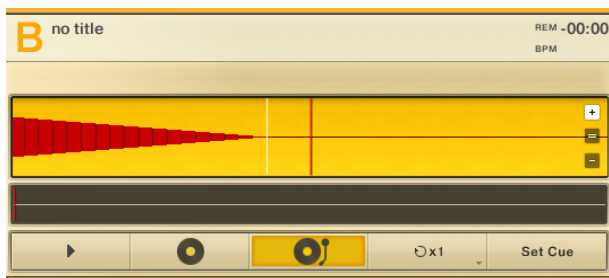
Deck B with the **Playmarker** exactly a ¼ turn ahead.

> **Note**: Since the position of the record has to be absolute to the position of the **Control Signal**, this method only works with **Absolute Mode**.

Stickering II: Relative Mode

You might have already seen turntablists using several stickers on their records for orientation. From a digital point of view, you can see these stickers as **Cue Points**.

If beat juggling and scratching is your passion, you have may have no time to look at the computer screen to find these **Cue Points**. Your eyes have to focus on the hardware decks. Here's a tip for the vinylists that are already familiar with the concept of stickering "normal" records.

If you don't know how to sticker your records, perform an internet search for turntablist websites.

- Place some stickers on your **Control Vinyls**. It doesn't matter where you place the stickers.
- Load a track in a deck.
- If you're not already in it, change from **Absolute Mode** (right record button below the waveform turned on) to **Relative Mode** (middle button).
- Let the record run until that certain point you want to recall.
- Click once on the **Play** button for **Internal Mode**. The **Control Signal** is now decoupled from the record.
- Turn your record until your sticker meets the needle, or to 12 o'clock - depending on your preference.
- Click on the **Relative Mode** button again.
- Now you are able to recall the position of the track as with standard vinyl!

Note: Since the position of the record has to be decoupled from the absolute position of the **Control Signal**, this method only works with **Relative Mode**.

16.5 Airplane Mode

If the AUDIO 8 DJ is *not* connected to your computer, TRAKTOR Scratch automatically assigns all **Outputs** to your built-in (onboard) sound card. This is the most basic possible setup and comes in handy if you're travelling to a gig and want to preview or prepare some tracks, e.g. while you're on an airplane.

- Close TRAKTOR Scratch.
- Disconnect the AUDIO 8 DJ from your computer, then restart TRAKTOR Scratch.
- Load track in **Deck A**.
- Click the **Play** button underneath **Deck A**.
- You should hear output from your (onboard) speakers.
- You can now perform any pre-gig preparations - like setting a **Beatgrid** on a track, marking certain parts with **Cue Points or** editing tracks via the **Browser**.
- This way you don't need to connect the AUDIO 8 DJ to prepare your tracks.

Note: Since TRAKTOR Scratch is designed to be used with an external hardware mixer, it offers no options for crossfading or EQing the mix.

Note: After using TRAKTOR Scratch in **Airplane Mode** and reconnecting the AUDIO 8 DJ to your computer, the software will not automatically switch to Scratch Mode. Open *Preferences > Audio Setup* and select the **AUDIO 8 DJ** as your audio interface to switch to Scratch Mode.

17. Troubleshooting

TRAKTOR Scratch is a complex piece of software and it is more than natural that you need to soundcheck before a gig, as you would with a regular DJ setup. The addition of a soundcard and a computer to the traditional setup makes the soundcheck even more complex as more components can be misconnected or wrongly set. This chapter provides a guide to troubleshooting the most common problems when starting up TRAKTOR Scratch.

17.1 What is Latency?

As with any digital device (including hardware signal processors) that convert audio to data and back again, a computer adds a certain amount of delay ("latency") when processing audio signals. Fortunately, with today's computers and low-latency sound card drivers, this delay can be so small that you can't hear it (e.g., under 3 milliseconds, which is about the same delay caused by moving your head one meter further away from a speaker). However, typical computers are generally not set up for low latency; attempting to play in real time through TRAKTOR Scratch will probably prove unsatisfying due to the delay.

Any computer-based audio system has some delay between the audio input and output. As a result, if you're playing a MIDI keyboard through TRAKTOR Scratch, you may hear an annoying delay between the time you hit a key and hear the sound. Even the most powerful computer can only do a certain number of calculations per second; generating and processing sounds demands a lot from a computer, so it's important to minimize any computer-based delays.

Fortunately, three main factors make delays virtually insignificant, assuming you have a suitable computer setup (see System Requirements).

- Today's multi-GigaHertz computers are so fast they dramatically reduce latency.
- The AUDIO 8 DJ includes drivers optimized for low latency.
- TRAKTOR Scratch has been optimized to function as efficiently as possible.

How Low Can You Go?

1.5 ms of latency approaches the theoretical minimum, because it will always take some time to convert a keyboard press into MIDI data, then convert NI's software digital audio out to analog. However, note that ultra-low latency settings (or higher sampling rates) make your computer work harder, which can affect the performance. So, here are some tips on living with latency.

About Samples and Buffers

Audio cannot be handled continuously by a computer, but has to wait its turn while other operations are being carried out. As a result, soundcards create a "buffer," which can hold a certain number of samples, where data can be stored and released as needed to create a smooth flow of data. An analogy would be if you had a hose that didn't deliver water continuously, but in bursts. So, you use a holding tank to store the water coming in from the hose, and have a valve in the tank that releases a steady amount of water in a smooth, continuous flow.

If the tank (buffer) is large, then you can store more water in case the hose goes dry for a bit. But it will take longer to fill the bucket, which is equivalent to latency. A smaller tank takes less time to fill, but the hose had better deliver water on a pretty continuous basis.

All ASIO audio interfaces and sound cards include a control panel where you can adjust latency. This may be given as the number of samples per buffer or just miliseconds.

The AUDIO 8 DJ provides you with six predefined settings (in milliseconds) to choose from, and the option to user-define the values. *Open Start > All Programs > Native Instruments AUDIO 8 DJ Driver > Control Panel*. Read more about the **Control Panel** of the AUDIO 8 DJ in chapter 5.5 (Control Panel).

Warning: Different Types Of ASIO

It's extremely important to use the ASIO driver written for the card you're using. There are also *generic* ASIO drivers, typically called (for Windows) *ASIO DirectX Full Duplex Driver* or *ASIO Multimedia Driver*. They will usually be found in a drop-down menu in the host program where you choose the desired ASIO driver. If you're not sure which one to use, try them all, and choose the one with the lowest latency. There should be an obvious, dramatic difference when you use the correct ASIO driver.

17.2 Hardware Troubleshooting

NATIVE INSTRUMENTS hardware products meet the highest professional standards. All products are tested extensively in real life situations during the development phase. However, should you encounter any problems with your hardware, please follow these steps for troubleshooting:

- Verify that you have installed the latest driver and the latest software update. Check the NATIVE INSTRUMENTS website for information.
- Make sure that the AUDIO 8 DJ hardware is connected to a USB 2.0 port on your computer.

- Make sure you are connecting directly to a USB port on the computer and not through a USB hub.
- Try another USB cable.
- Disconnect any other USB devices from the computer (except keyboard/mouse).
- Try using any other USB ports on your computer.

You can find more detailed information on these steps in the following sections.

However, if your product needs to be returned, the Technical Support team will assign you an RA (Return Authorization) number to expedite the processing of your return. Please contact our Technical Support team prior to returning any item. The contact information is available under the following URL:

http://www.nativeinstruments.de/index.php?id=contactinfo_us

Packages returned without this RA number will not be correctly identified and as such might not be processed properly.

17.3 How to check if the driver is installed correctly?

On a PC in the Windows Start menu there should be a new entry called **Native Instruments AUDIO 8 DJ Driver**. There you will find the helper applications **Audio Statistics** and **Control Panel**. Make sure that the device is connected to the computer and open the **Control Panel**. If all the drop-down menus are grayed out (i.e., there are no presets in the preset drop-down list, no sample rate and bit rate values) there must be something wrong with the connection. If the **Native Instruments AUDIO 8 DJ Driver** entry in the Start Menu is missing, the driver is most probably not installed at all.

On a Mac, look into the System Preferences for the NATIVE INSTRUMENTS USB Audio Control Panel icon. Open this control panel to see if the device is found. If no device is found the Control Panel values will appear grayed out. If the NATIVE INSTRUMENTS USB Audio Control Panel icon is missing here, the driver is probably not installed at all.

If the driver is not installed, you can install it using the setup program described in chapter 1 (Audio 8 DJ and TRAKTOR Scratch Software Installation).

If the device is not recognized, here are a few things you should check.

USB 2.0 required

The AUDIO 8 DJ is a USB 2.0 interface and will not work at all on a USB 1.0/ 1.1 port.

In addition, although the minimum power specified for a USB 2.0 port is 500 mA, we have seen a few cases where the USB 2.0 ports on certain computers do not fulfill the minimum requirements and therefore do not meet the official USB 2.0 specification. In this case you may see a message saying that there is not enough power available to operate your device.

In this case the Controller might produce crackles or may not work at all.

Try another USB cable

A bad USB cable can be responsible for audio dropouts and other connectivity problems. It is highly recommended that you try using a different cable if you are experiencing difficulties; make sure to use a cable bearing the official USB logo.

Using a powered USB 2.0 hub

It is best to connect the AUDIO 8 DJ directly to a USB 2.0 port on your computer. However, in certain situations a powered USB hub can also be a solution if you are having problems connecting your AUDIO 8 DJ to an onboard USB port. In this case you should avoid connecting other devices to the hub if you can as they will take diminish the total amount of power available.

Disable USB energy saving mode

If you're having problems with AUDIO 8 DJ crashing or performing badly on a Windows machine, the first thing to do is to disable power management to the USB hubs. XP turns this on by default. Go to device manager (Control Panel/system/hardware) and right click a USB hub to bring up properties. On the power management page, uncheck all boxes. Repeat for each hub and reboot.

Update the Driver

Check the NATIVE INSTRUMENTS website regularly for updates of the AUDIO 8 DJ driver.

17.4 How to avoid Ground Loops

Ground loops are a common problem within any environment where multiple electrical devices are connected to the same power circuit. In complex setups the cause(s) of the noise can be difficult to find. Ground loops are perceived usually as a hum or buzz in your audio signal, but this can also transmit and amplify other sounds from the devices connected to the circuit. For example, one very common problem is that you hear internal clicking sounds created by your computer.

The cause of the noise is usually the computer and its internal devices, or devices connected to the computer like external hard drives. (Note that even if the power supply of your notebook computer is not connected, your setup may still be vulnerable to ground noise from an external device with its own power supply.) The cause can also be any other device (such as a television) connected to the same mixer.

The reason why this noise is present at the monitor speakers input has to do with a loop in the setup of your electrical and audio cable connections. Most likely this loop occurs through the ground of one or more of these cables. With this in mind, the following points should help to eliminate the ground loop:

Try to eliminate the loop

Assuming that you have connected the AUDIO 8 DJ to a mixer, a first troubleshooting step is to disconnect all devices from your mixer that you are not currently using. This applies also to other peripheral devices you may have connected to your computer (external data storage, CD burners).

Break the loop with a DI box

If you cannot fix the ground noise problem by disconnecting equipment, you still have the possibility of using a DI (direct input) box between the AUDIO 8 DJ outputs and the mixer inputs. (This is the same kind of box that is used to connect a line-level instrument like a guitar). Most of these boxes have a ground lift switch on them, this can be used to break the ground loop and eliminate the noise. A DI box is especially recommended if your mixer has unbalanced inputs only.

17.5 How to use the AUDIO 8 DJ with a Laptop

Check the Laptop's latency

First you should check if your computer is suited to handling real-time audio

processing without experiencing dropouts. Dropouts might be caused by certain components in your computer. Please download a tool that scans your computer regarding suitability for audio processing. You can find an appropriate one at www.thesycon.de/deu/latency_check.shtml. There is no software installation required, just launch the tool after downloading.

With AUDIO 8 DJ disconnected the tool will report if your laptop can handle real-time audio streaming without dropouts.

In case your computer is unable to handle glitch free audio processing, the tool will show you red latency bars and report this in the box on the bottom. Run it with both settings – AUDIO 8 DJ connected and disconnected – to find out about your computer's capacities.

Avoid Shared Memory

In general it is not recommended to use laptops with shared-memory graphic cards. A Shared-memory graphic card accesses to the same memory as the CPU. Other Graphic Cards have their own memory, so that the main memory is reserved for the audio processing. You'll need memory and processing power available for your audio project.

Avoid Battery Usage

It is not recommended to run the laptop on its battery, as the computer might slow the clock rate of the CPU down.

Disable Devices

First, disconnect additional hardware (printers, scanners etc.) that you don't need while you are working with AUDIO 8 DJ. **Thus, the computer does not** need to handle superfluous devices.

Beside that, laptops often are equipped with built-in devices that disturb audio processing. An example is a wireless LAN card. In case you experience serious dropouts, you might need to disable these devices while working with AUDIO 8 DJ.

Windows XP

To do so, please go to the device manager (Start>Run and type 'devmgmt. msc'). You can disable a device (let's say the network adapter) by clicking on network-adapter and double clicking on the device to bring up its properties dialog. On the bottom of this pane you can disable the device via the Scroll-Down menu. Please deactivate it and hit "OK". You should see a red cross over the device, which means that it has been deactivated.

Common built-in devices are: network adapters, wireless LAN cards, bluetooth ports, infrared ports, printer ports etc. Try to disable the network adapter and wireless LAN card first, as they are the most common problem causing devices in audio processing. Make sure that you don't disable devices that are indispensable for your laptop to work properly. Here is a list of devices that you should not deactivate: System timer, Keyboard, System CMOS/real time clock, Microsoft ACPI-Compliant System, Numeric data processor, Primary IDE Channel, Secondary IDE Channel, Graphics Controller, Ultra ATA Storage Controllers.

Macintosh OS X

If you have a wireless LAN card installed and Bluetooth running turn them off while you are using AUDIO 8 DJ (you can turn this off in the top OSX menu bar).

17.6 TRAKTOR Scratch won't start (or crashes upon start):

- Check the systems requirements for TRAKTOR Scratch. The minimum requirements are the very least you can get by with, and are often not enough for advanced use (i.e. Key Lock, Effects). Updating your RAM configuration may save you a lot of trouble.
- Make sure you have the most recent TRAKTOR Scratch version.
- Make sure that you have not clicked on an outdated application alias/ shortcut.
- Try to restart your computer. Disconnect any audio interfaces and computer peripherals like printers, scanners and the like.
- If nothing helps, contact the support and send them your crashlog.

17.7 Tracks load but won't play!

If your waveforms are not moving regardless of pressing **Play,** most likely something is wrong with your **Soundcard Setup.**

Check the Selected Audio Device:

- Open TRAKTOR Scratch *Preferences > Audio Setup > Soundcard*.
- Make sure you have selected the correct soundcard. The **Audio Device** drop down list shows all soundcards that have been installed on your computer. With TRAKTOR Scratch you can only choose between your onboard soundcard and the AUDIO 8 DJ.

- If the AUDIO 8 DJ does not appear in the list, it is probably not correctly installed or not correctly connected. Verify the mechanical connections and check the correct installation of the soundcard as described further below.
- You may need to deselect and re-select your sound card.
- If this does not work, try to select the AUDIO 8 DJ, confirm with **OK** and then close and re-open TRAKTOR Scratch.

Check the Audio Control Panel in Windows

To check the correct installation of your soundcard on a Windows computer do the following:

- Open **Start > Control Panel > Sounds and Audio Devices > Audio**.
- For **Sound Playback > Default Device**, drop down the menu and make sure your soundcard is displayed in the list. If it is *not*, you may need to reinstall the drivers for your soundcard.

Check the Audio/ Midi Setup in Mac OS X

To check the correct installation of your soundcard on a Mac do the following:

- Open **Macintosh HD > Applications > Utilities > Audio Midi Setup** and click the **Audio Devices** tab.
- For **Default Input**, drop-down the menu and make sure your soundcard is displayed in the list. If it is *not*, you may need to reinstall the drivers for your sound card.

Decks play but there is no Sound!

Most likely when the decks are playing everything is fine with the soundcard drivers and selection but something may be wrong in the way you connected your soundcard to your speaker system or headphones.

Look at the **Master Details Panel** and verify that the **Master Level Meter** is showing an output signal.

No Master Level Activity

If the **Master Level Meter** shows no output activity:

- verify if the **Master Volume** knob is all the way up.

If after verifying all this you can still not obtain any **Master Level** activity, you should contact support.

17.8 Decks Play, Master Level Flashes, but no Sound!

Test your Speaker Setup

At this point you have tested almost any possible routing error in TRAKTOR Scratch itself. You now have to verify your external connections including your amplifier and loudspeakers.

A good way to test the external connections is to momentarily disconnect the audio cables from your soundcard. You should hear a popping sound or a buzz as you unplug the cables if everything is set up correctly in the signal path after the soundcard.

> **Note:** Before unplugging the cables verify if you have turned the volume of your amplifier and speakers safely down, as hot-unplugging cables can cause damage to your amplifier and speaker system.

If this test gives positive result you should test your audio setup with another standard music software installed on your computer.

Test your Soundcard on Windows

- Open **Start > Control Panel > Sounds and Audio Devices > Audio**.
- For **Sound Playback > Default Device**, drop down the menu and select your sound card (audio device).
- Open the **Windows Media Player** and load and play a song.
- If you do *not* hear sound, your speaker setup is not configured properly.

Test your Soundcard on Mac OS X

- Open **Macintosh HD > Applications > Utilities > Audio Midi Setup** and click the **Audio Devices** tab.
- For **Default Input**, **Output** and **System Output**, drop down each menu and select your audio device.
- Open iTunes and play back an audio file or song.
- If you do *not* hear sound, your speaker setup is not configured properly.

17.9 Audio Pops, Clicks and/ or Distortions!

Check your system specs

If your system does not meet the following requirements, you may experience pops, clicks and/ or distortion in audio playback.

Mac:

G4 1.4 GHz, Mac OS 10.4.8 or Intel® Core™ Duo Family, 512 MB RAM

USB 2.0 Interface

PC:

Pentium/ Athlon 1.4 GHz, Windows XP Service Pack 2, 512 MB RAM

USB 2.0 Interface

Raise the Audio Latency

- Open the **Control Panel** of the AUDIO 8 DJ.
- Click the arrow next to **Latency** and select a *higher* latency buffer size.
- Keep raising the latency until TRAKTOR Scratch no longer pops/ clicks or distorts.

Test with the built-in soundcard

- Disconnect the AUDIO 8 DJ.
- Connect your speaker setup to the built-in sound card of your computer.
- Play back TRAKTOR Scratch.
- If playback is fine with your built-in sound card, you may have an IRQ conflict (Windows only) on the slot or port your sound card is connected to, or you may need to physically move your sound card to another USB port.

Physically re-configure your Audio Device

USB

- If your sound card connects via USB, connect it to another USB port on your computer.
- Try all USB ports on your computer until you find one that works best.

Check your IRQs (Windows only)

IRQ stands for **Interrupt Request**. This is the way in which Windows allocates resources to the various devices and ports in your system. If your sound card (audio device) is on a port that shares an IRQ with other devices, you may have an **IRQ Conflict**. This means your sound card is not receiving the resources it needs to function properly. Here is how you detect an **IRQ Conflict**.

- Open **Start > Run** and type the word **msinfo32** and press **OK**.
- Your system information window will appear.
- Click the **Plus** (+) sign next to **Hardware**.
- Click on IRQs.
- Your IRQs will be displayed in the window to the right.
- Your USB port will show up as USB universal host controller in the list.
- If the IRQ number listed next to any of these ports is sharing with other devices in your system, you may have an **IRQ Conflict**. In this case, use the instructions above to physically move your sound card to another port.
- If this does not work, and your computer is a desktop, you may be able to change the IRQ allocation from within the system BIOS (depending on your motherboard). With most laptop computers it is not possible to change IRQ allocation. You may need to reinstall your Operating System for a better IRQ configuration.

17.10 The Waveforms (or other Graphics) Pause or Stutter!

If the graphics of TRAKTOR Scratch pause or stutter, follow the same instructions above to **Check your System Specs**, **Raise the Audio Latency** and **Test with the built-in Soundcard**.

Lower your **Cache** Settings and use a lower **Key Lock** quality. Also refer to the next chapter for optimizing your computer.

17.11 I get no Response from my MIDI-Controller

Activate Controller
- Open TRAKTOR *Preferences > Hotkey & MIDI Setup > MIDI Interfaces*.
- Make sure there is an **X** in the active column next to your MIDI device.

If there is not, double-click to put an **X** in the box.

- If your MIDI device does not appear in the list, it may not be correctly connected or installed or it may have been plugged in after startup of TRAKTOR Scratch. You should restart TRAKTOR Scratch.
- Click on **MIDI Setup** and use **Learn** to configure your controller.

Check your Device Manager (Windows)

If your device does not appear in the **Interfaces** list even after restarting, check your MIDI configuration.

- Open **Start**, then right-/ ctrl-Click **My Computer**, choose **Properties > Hardware > Device Manager**.
- Click the **Plus** (+) sign next **to Sound, Video and Game Controllers**.
- Your MIDI device should be listed here.
- If there is a yellow exclamation mark (**!**), question mark (**?**) or if it is not listed at all, you may need to reinstall the drivers for your MIDI device or consult its manual for further trouble shooting.

Test MIDI Setup on Mac OS X

- Open **Macintosh HD > Applications > Utilities > Audio Midi Setup** and click the **MIDI Devices** tab.
- Your MIDI device should be in the list.
- Click on the **Test Setup** button.
- Click on the MIDI device icon.
- Press a key or move a control on your MIDI controller. You should hear a small sound.
- If your MIDI device appears in the list as is grayed out, or if it does not show up at all, you may need to reinstall the drivers for your MIDI device or consult its manual for further trouble shooting.

18. Optimizing your Computer

18.1 Macintosh Optimization

Log off Additional Users
If you have set up multiple user accounts on your computer, make sure your user account is the only one logged in by logging off any additional users.

Turn off the Screen Saver
- Open **System Preferences > Desktop & Screen Saver**.
- Choose the **Screen Saver** tab.
- Set the slider for **Start Screen Saver** to **Never**.

Make the Desktop Static
- Open **System Preferences > Desktop & Screen Saver**.
- Choose the **Desktop** tab.
- Choose an image for your background.
- Unselect **Change Picture**.

Lock The Dock
- Open **System Preferences > Dock**.
- Drop down the menu next to **Minimizing Using** and select **Scale Effect**.
- Unselect **Animate opening applications** and **Automatically hide and show the Dock**.

Dismantle Dashboard (10.4 Tiger and Above)
Search the internet for OS X Dashboard kill applications. There are several to choose from. Some are simple applications that you double-click to stop and start the **Dashboard**, others are lines of code to be pasted into the **Terminal**.

Do NOT put Hard Drive(s) to Sleep
- Open **System Preferences > Energy Saver**.
- Uncheck **Put the hard disk(s) to sleep when possible**.

Turn Off Sharing

- Open **System Preferences > Sharing**.
- Click on the **Services** tab.
- Unselect **Personal File Sharing** and **Internet Sharing**.

Shut Down all other Applications

- If you have any other applications running, shut them down while using TRAKTOR Scratch.

18.2 Windows Optimization

Processor Scheduling

- Open **Start > Control Panel** and double-click **System**.
- Choose **Advanced**.
- Under **Performance** choose **Settings**.
- Choose the **Advanced** tab.
- Under **Processor Scheduling** select **Background Services**.

Visual Effects

- Open **Start > Settings > Control Panel** and double-click **System**.
- Choose **Advanced > Visual Effects** tab.
- Choose **Adjust for best performance**.

Turn Off Desktop Background Image

- Right-/ Ctrl-Click **Desktop > Properties > Desktop**.
- At the top of the list under **Background**, choose **None**.

Disable Screen Saver

- Right-/ Ctrl-Click **Desktop > Properties > Screen Saver** tab.
- Drop down the screen saver menu and choose **None**.

Disable Fast User Switching

- Choose **Start > Settings > Control Panel > User Accounts**.
- Click on **Change the Way Users log On or Off** and unselect **Use Fast User Switching**.

Switch Off Power Schemes

- Choose **Start > Control Panel > Power Options**.
- Set **Power Schemes** to **Always On**.
- Drop down the menu for **Turn off Monitor** and select **Never**.
- Drop down the menu for **Turn off hard discs** and select **Never**.

Turn Off Hibernation

- Open **Start > Control Panel** and double-click **Power Options**.
- Choose the **Hibernate** tab and unselect **Enable Hibernation**.

Disable System Sounds

- Open **Start > Control Panel** and double-click **Sounds and Audio Devices**.
- Choose the **Sounds** tab.
- Drop down the sound scheme menu and select **None**.

Disable System Restore

- Open **Start > Control Panel > System**.
- Click on the **System Restore** tab.
- Select **Turn off System Restore on all Drives**.

Shut Down all other Applications

If you have any other applications running, shut them down while using TRAKTOR Scratch.

19. Getting Help

If you can't find out the reason for a problem, NATIVE INSTRUMENTS provides extentsive help to registered users. The relevant links are available in the NI SERVICE CENTER.

19.1 Knowledge Base/ Readme/ Online Support

Open the NI SERVICE CENTER to find a series of links directly leading you to the NATIVE INSTRUMENTS Online Knowledge Base and to the Online Support frontend.

The frontend will ask you for all information about your hardware and software environment, to better facilitate the information to our support team. The entries you make are cookied, so they should be automatically be reproduced when you enter a second support request.

In your communication with the support team, keep in mind that you should offer as much information as possible about your hardware, your operating system and the version of the software you are running, to give the possibility to help you. In your description, you should mention:

- how to reproduce the problem
- what have you already done to try to fix the problem
- a description of your setup, including all hardware
- the brand and specs of your computer

Important: Always consult the Readme file of a new software version. It contains important information and all last minute changes, that weren't available when printing this manual.

19.2 Forum

In the NATIVE INSTRUMENTS User Forum you can discuss problems directly with other users and with experts from NI, moderating the forum.

The TRAKTOR Forum's adress is:

http://www.nativeinstruments.de/forum_de/forumdisplay.php?f=105

19.3 Updates

Whenever you encouter problems, you should also check if you have installed the latest update. Click on the TRAKTOR logo or open the NI SERVICE CENTER to display the version number of your software. Updates are released regularly to fix known problems and to constantly improve the software.

20. Hotkeys

TRAKTOR Scratch has several hundred functions that can be assigned to keys of your computer keyboard completely to your preference!

The most important of them for a live context have been assigned to keys on your computer keyboard. The file containing this preset is named **TSKeyboard. tks** and can be found in your *Traktor3* folder.

For further information how to load and save single **Hotkeys** or a whole **Hotkey Assignment**, please read chapter 14 (**MIDI** and Hotkeys**)**.

Focus / Layouts

Deck Focus Next	= Tab
Deck Focus Deck A	= Q
Deck Focus Deck B	= W
Layout #1 Page#1 (Performing)	= 1
Layout #1 Page#2 (Performing)	= 2
Layout #1 Page#3 (Performing)	= 3
Layout #1 Page#4 (Performing)	= 4
Layout #2 (Playback)	= 5
Layout #2 (Browsing)	= 6

Browsing

Browser List Select Up/ Down	= Arrow Up/ Down
Browser List Select Page Up/ Down	= PgUp/ PgDn
Browser List Select Top/ Bottom	= Home/ End
Browser List Extend Up/ Down	= Shift + Arrow Up/ Down
Browser List Select All	= Ctrl + A
Browser List Delete Selection	= Del

| Browser Favorites Select 1-10 | = F1-F10 |
| Browser Search | = S |

Loading

Deck Load Selected in Deck A	= Ctrl + Arrow Left
Browser Load Selected in Focus Deck	= L
Deck Load Selected in Deck B	= Ctrl + Arrow Right
Unload Track from Focus Deck	= U

Playback

| Deck Play/ Pause Focus Deck | = Space |

Loop

Deck Loop on/ off Deck A	= I
Deck Loop on/ off Focus Deck	= O
Deck Loop on/ off Deck B	= P

Scratch

Internal Mode	= 7
Relative Mode	= 8
Absolute Mode	= 9

Misc

Deck Time Stretch on/ off Focus Deck	= K
Deck Cue Set Deck A	= X
Deck Cue Set Focus Deck	= C
Deck Cue Set Deck B	= V
Deck Duplicate Deck A	= Ctrl + Shift + Arrow right
Deck Duplicate Deck B	= Ctrl + Shift + Arrow left

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